

RECEIVED
JUN 09 2003
TECH CENTER 1600/2900

GAATTCGGAG GAATTATTCA AAACATAAAC ACAATAAACA ATTTGAGTAG TTGCCGCACA	60
CACACACACA CACAGCCCGT GGATTATTAC ACTAAAAGCG ACACTCAATC CAAAAAATCA	120
GCAACAAAAA CATCAATAAA C ATG CAT TGG ATT AAA TGT TTA TTA ACA GCA	171
Met His Trp Ile Lys Cys Leu Leu Thr Ala	
1 5 10	
TTC ATT TGC TTC ACA GTC ATC GTG CAG GTT CAC AGT TCC GGC AGC TTT	219
Phe Ile Cys Phe Thr Val Ile Val Gln Val His Ser Ser Gly Ser Phe	
15 20 25	
GAG TTG CGC CTG AAG TAC TTC AGC AAC GAT CAC GGG CGG GAC AAC GAG	267
Glu Leu Arg Leu Lys Tyr Phe Ser Asn Asp His Gly Arg Asp Asn Glu	
30 35 40	
GGT CGC TGC TGC AGC GGG GAG TCG GAC GGA GCG ACG GGC AAG TGC CTG	315
Gly Arg Cys Cys Ser Gly Glu Ser Asp Gly Ala Thr Gly Lys Cys Leu	
45 50 55	
GGC AGC TGC AAG ACG CGG TTT CGC GTC TGC CTA AAG CAC TAC CAG GCC	363
Gly Ser Cys Lys Thr Arg Phe Arg Val Cys Leu Lys His Tyr Gln Ala	
60 65 70	
ACC ATC GAC ACC ACC TCC CAG TGC ACC TAC GGG GAC GTG ATC ACG CCC	411
Thr Ile Asp Thr Thr Ser Gln Cys Thr Tyr Gly Asp Val Ile Thr Pro	
75 80 85 90	
ATT CTC GGC GAG AAC TCG GTC AAT CTG ACC GAC GCC CAG CGC TTC CAG	459
Ile Leu Gly Glu Asn Ser Val Asn Leu Thr Asp Ala Gln Arg Phe Gln	
95 100 105	
AAC AAG GGC TTC ACG AAT CCC ATC CAG TTC CCC TTC TCG TTC TCA TGG	507
Asn Lys Gly Phe Thr Asn Pro Ile Gln Phe Pro Phe Ser Phe Ser Trp	
110 115 120	

FIG. 10A



RECEIVED
JUN 09 2003
TECH CENTER 1600/2800

CCG GGT ACC TTC TCG CTG ATC GTC GAG GCC TGG CAT GAT ACG AAC AAT Pro Gly Thr Phe Ser Leu Ile Val Glu Ala Trp His Asp Thr Asn Asn 125 130 135	555
AGC GGC AAT GCG CGA ACC AAC AAG CTC CTC ATC CAG CGA CTC TTG GTG Ser Gly Asn Ala Arg Thr Asn Lys Leu Leu Ile Gln Arg Leu Leu Val 140 145 150	603
CAG CAG GTA CTG GAG GTG TCC TCC GAA TGG AAG ACG AAC AAG TCG GAA Gln Gln Val Leu Glu Val Ser Ser Glu Trp Lys Thr Asn Lys Ser Glu 155 160 165 170	651
TCG CAG TAC ACG TCG CTG GAG TAC GAT TTC CGT GTC ACC TGC GAT CTC Ser Gln Tyr Thr Ser Leu Glu Tyr Asp Phe Arg Val Thr Cys Asp Leu 175 180 185	699
AAC TAC TAC GGA TCC GGC TGT GCC AAG TTC TGC CGG CCC CGC GAC GAT Asn Tyr Tyr Gly Ser Gly Cys Ala Lys Phe Cys Arg Pro Arg Asp Asp 190 195 200	747
TCA TTT GGA CAC TCG ACT TGC TCG GAG ACG GGC GAA ATT ATC TGT TTG Ser Phe Gly His Ser Thr Cys Ser Glu Thr Gly Glu Ile Ile Cys Leu 205 210 215	795
ACC GGA TGG CAG GGC GAT TAC TGT CAC ATA CCC AAA TGC GCC AAA GGC Thr Gly Trp Gln Gly Asp Tyr Cys His Ile Pro Lys Cys Ala Lys Gly 220 225 230	843
TGT GAA CAT GGA CAT TGC GAC AAA CCC AAT CAA TGC GTT TGC CAA CTG Cys Glu His Gly His Cys Asp Lys Pro Asn Gln Cys Val Cys Gln Leu 235 240 245 250	891
GGC TGG AAG GGA GCC TTG TGC AAC GAG TGC GTT CTG GAA CCG AAC TGC Gly Trp Lys Gly Ala Leu Cys Asn Glu Cys Val Leu Glu Pro Asn Cys 255 260 265	939

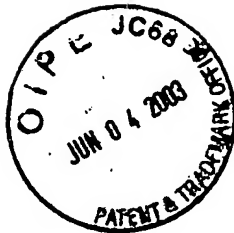
FIG. 10B



RECEIVED
JUN 09 2003
TECH CENTER 1600/2900

ATC CAT GGC ACC TGC AAC AAA CCC TGG ACT TGC ATC TGC AAC GAG GGT Ile His Gly Thr Cys Asn Lys Pro Trp Thr Cys Ile Cys Asn Glu Gly 270 275 280	987
TGG GGA GGC TTG TAC TGC AAC CAG GAT CTG AAC TAC TGC ACC AAC CAC Trp Gly Gly Leu Tyr Cys Asn Gln Asp Leu Asn Tyr Cys Thr Asn His 285 290 295	1035
AGA CCC TGC AAG AAT GGC GGA ACC TGC TTC AAC ACC GGC GAG GGA TTG Arg Pro Cys Lys Asn Gly Gly Thr Cys Phe Asn Thr Gly Glu Gly Leu 300 305 310	1083
TAC ACA TGC AAA TGC GCT CCA GGA TAC AGT GGT GAT GAT TGC GAA AAT Tyr Thr Cys Lys Cys Ala Pro Gly Tyr Ser Gly Asp Asp Cys Glu Asn 315 320 325 330	1131
GAG ATC TAC TCC TGC GAT GCC GAT GTC AAT CCC TGC CAG AAT GGT GGT Glu Ile Tyr Ser Cys Asp Ala Asp Val Asn Pro Cys Gln Asn Gly Gly 335 340 345	1179
ACC TGC ATC GAT GAG CCG CAC ACA AAA ACC GGC TAC AAG TGT CAT TGC Thr Cys Ile Asp Glu Pro His Thr Lys Thr Gly Tyr Lys Cys His Cys 350 355 360	1227
GCC AAC GGC TGG AGC GGA AAG ATG TGC GAG GAG AAA GTG CTC ACG TGT Ala Asn Gly Trp Ser Gly Lys Met Cys Glu Glu Lys Val Leu Thr Cys 365 370 375	1275
TGC GAC AAA CCC TGT CAT CAG GGA ATC TGC CGC AAC GTT CGT CCT GGC Ser Asp Lys Pro Cys His Gln Gly Ile Cys Arg Asn Val Arg Pro Gly 380 385 390	1323
TTG GGA AGC AAG GGT CAG GGC TAC CAG TGC GAA TGT CCC ATT GGC TAC Leu Gly Ser Lys Gly Gln Gly Tyr Gln Cys Glu Cys Pro Ile Gly Tyr 395 400 405 410	1371

FIG. 10C



RECEIVED
JUN 08 2003
TECH CENTER 1600/2900
1419

AGC GGA CCC AAC TGC GAT CTC CAG CTG GAC AAC TGC AGT CCG AAT CCA
Ser Gly Pro Asn Cys Asp Leu Gln Leu Asp Asn Cys Ser Pro Asn Pro
415 420 425

TGC ATA AAC GGT GGA AGC TGT CAG CCG AGC GGA AAG TGT ATT TGC CCA
Cys Ile Asn Gly Gly Ser Cys Gln Pro Ser Gly Lys Cys Ile Cys Pro
430 435 440 1467

GCG GGA TTT TCG GGA ACG AGA TGC GAG ACC AAC ATT GAC GAT TGT CTT
Ala Gly Phe Ser Gly Thr Arg Cys Glu Thr Asn Ile Asp Asp Cys Leu
445 450 455 1515

GGC CAC CAG TGC GAG AAC GGA GGC ACC TGC ATA GAT ATG GTC AAC CAA
Gly His Gln Cys Glu Asn Gly Gly Thr Cys Ile Asp Met Val Asn Gln
460 465 470 1563

TAT CGC TGC CAA TGC GTT CCC GGT TTC CAT GGC ACC CAC TGT AGT AGC
Tyr Arg Cys Gln Cys Val Pro Gly Phe His Gly Thr His Cys Ser Ser
475 480 485 490 1611

AAA GTT GAC TTG TGC CTC ATC AGA CCG TGT GCC AAT GGA GGA ACC TGC
Lys Val Asp Leu Cys Leu Ile Arg Pro Cys Ala Asn Gly Gly Thr Cys
495 500 505 1659

TTG AAT CTC AAC AAC GAT TAC CAG TGC ACC TGT CGT GCG GGA TTT ACT
Leu Asn Leu Asn Asn Asp Tyr Gln Cys Thr Cys Arg Ala Gly Phe Thr
510 515 520 1707

GGC AAG GAT TGC TCT GTG GAC ATC GAT GAG TGC AGC AGT GGA CCC TGT
Gly Lys Asp Cys Ser Val Asp Ile Asp Glu Cys Ser Ser Gly Pro Cys
525 530 535 1755

CAT AAC GGC GGC ACT TGC ATG AAC CGC GTC AAT TCG TTC GAA TGC GTG
His Asn Gly Gly Thr Cys Met Asn Arg Val Asn Ser Phe Glu Cys Val
540 545 550 1803

FIG. 10D



RECEIVED
JUN 09 2003
TECH CENTER 1600/2900

TGT GCC AAT GGT TTC AGG GGC AAG CAG TGC GAT GAG GAG TCC TAC GAT Cys Ala Asn Gly Phe Arg Gly Lys Gln Cys Asp Glu Glu Ser Tyr Asp 555 560 565 570	1851
TCG GTG ACC TTC GAT GCC CAC CAA TAT GGA GCG ACC ACA CAA GCG AGA Ser Val Thr Phe Asp Ala His Gln Tyr Gly Ala Thr Thr Gln Ala Arg 575 580 585	1899
GCC GAT GGT TTG ACC AAT GCC CAG GTA GTC CTA ATT GCT GTT TTC TCC Ala Asp Gly Leu Thr Asn Ala Gln Val Val Leu Ile Ala Val Phe Ser 590 595 600	1947
GTT GCG ATG CCT TTG GTG GCG GTT ATT GCG GCG TGC GTG GTC TTC TGC Val Ala Met Pro Leu Val Ala Val Ile Ala Ala Cys Val Val Phe Cys 605 610 615	1995
ATG AAG CGC AAG CGT AAG CGT GCT CAG GAA AAG GAC GAC GCG GAG GCC Met Lys Arg Lys Arg Lys Arg Ala Gln Glu Lys Asp Asp Ala Glu Ala 620 625 630	2043
AGG AAG CAG AAC GAA CAG AAT GCG GTG GCC ACA ATG CAT CAC AAT GGC Arg Lys Gln Asn Glu Gln Asn Ala Val Ala Thr Met His His Asn Gly 635 640 645 650	2091
AGT GGG GTG GGT GTA GCT TTG GCT TCA GCC TCT CTG GGC GGC AAA ACT Ser Gly Val Gly Val Ala Leu Ala Ser Ala Ser Leu Gly Gly Lys Thr 655 660 665	2139
GGC AGC AAC AGC GGT CTC ACC TTC GAT GGC GGC AAC CCG AAT ATC ATC Gly Ser Asn Ser Gly Leu Thr Phe Asp Gly Gly Asn Pro Asn Ile Ile 670 675 680	2187
AAA AAC ACC TGG GAC AAG TCG GTC AAC AAC ATT TGT GCC TCA GCA GCA Lys Asn Thr Trp Asp Lys Ser Val Asn Asn Ile Cys Ala Ser Ala Ala 685 690 695	2235

FIG. 10E



RECEIVED
JUN 09 2003
TECH CENTER 1800/2800

GCA GCG GCG GCG GCG GCA GCA GCG GCG GAC GAG TGT CTC ATG TAC GGC Ala Ala Ala Ala Ala Ala Ala Ala Ala Asp Glu Cys Leu Met Tyr Gly 700 705 710	2283
GGA TAT GTG GCC TCG GTG GCG GAT AAC AAC AAT GCC AAC TCA GAC TTT Gly Tyr Val Ala Ser Val Ala Asp Asn Asn Asn Ala Asn Ser Asp Phe 715 720 725 730	2331
TGT GTG GCT CCG CTA CAA AGA GCC AAG TCG CAA AAG CAA CTC AAC ACC Cys Val Ala Pro Leu Gln Arg Ala Lys Ser Gln Lys Gln Leu Asn Thr 735 740 745	2379
GAT CCC ACG CTC ATG CAC CGC GGT TCG CCG GCA GGC AGC TCA GCC AAG Asp Pro Thr Leu Met His Arg Gly Ser Pro Ala Gly Ser Ser Ala Lys 750 755 760	2427
GGA GCG TCT GGC GGA GGA CCG GGA GCG GCG GAG GGC AAG AGG ATC TCT Gly Ala Ser Gly Gly Gly Pro Gly Ala Ala Glu Gly Lys Arg Ile Ser 765 770 775	2475
GTT TTA GGC GAG GGT TCC TAC TGT AGC CAG CGT TGG CCC TCG TTG GCG Val Leu Gly Glu Gly Ser Tyr Cys Ser Gln Arg Trp Pro Ser Leu Ala 780 785 790	2523
GCG GCG GGA GTG GCC GGA GCC TGT TCA TCC CAG CTA ATG GCT GCA GCT Ala Ala Gly Val Ala Gly Ala Cys Ser Ser Gln Leu Met Ala Ala Ala 795 800 805 810	2571
TCG GCA GCG GGC AGC GGA GCG GGG ACG GCG CAA CAG CAG CGA TCC GTG Ser Ala Ala Gly Ser Gly Ala Gly Thr Ala Gln Gln Gln Arg Ser Val 815 820 825	2619
GTC TGC GGC ACT CCG CAT ATG TAACTCCAAA AATCCGGAAG GGCTCCTGGT Val Cys Gly Thr Pro His Met 830	2670
AAATCCGGAG AAATCCGCAT GGAGGAGCTG ACAGCACATA CACAAAGAAA AGACTGGGT GGGTTCAAAA TGTGAGAGAG ACGCCAAAAT GTTGTGTGTG ATTGAAGCAG TTTAGTCGTC ACGAAAAATG AAAAATCTGT AACAGGCATA ACTCGTAAAC TCCCTAAAAA ATTTGTATAG TAATTAGCAA AGCTGTGACC CAGCCGTTTC GATCCCGAAT TC	2730 2790 2850 2892

FIG. 10F



RECEIVED
JUN 09 2003
TECH CENTER 1600/2900

10	20	30	40	50	60
GAATTCCCT	CCCCCTTT	TCCATGCAGC	TGATCTAAAA	GGGAATAAAA	GGCTGCGCAT
70	80	90	100	110	120
AATCATAATA	ATAAAAGAAG	GGGAGCGCGA	GAGAAGGAAA	GAAAGCCGGG	AGGTGGAAGA
130	140	150	160	170	180
GGAGGGGGAG	CGTCTCAAAG	AAGCGATCAG	AATAATAAAA	GGAGGCCGGG	CTCTTTGCCT
190	200	210	220	230	240
TCTGGAAGGG	GCCGCTCTTG	AAAGGGCTTT	TGAAAAGTGG	TGTTGTTTTT	CAGTCGTGCA
250	260	270	280	290	300
TGCTCCAATC	GGCGGAGTAT	ATTAGAGCCG	GGACGCGGCC	GCAGGGGCAG	CGGCGACGGC
310	320	330	340	350	360
AGCACCGGCG	GCAGCACCAG	CGCGAACAGC	AGCGGCGGCG	TCCCAGAGTC	CCGCGGCGGC
370	380	390	400	410	420
GCGCGCAGCG	ATGCGTTCCC	CACGGACACG	CGGCCGGTCC	GGGCGCCCCC	TAAGCCTCCT
	M R S	P R T R	G R S	G R P	L S L L>
430	440	450	460	470	480
GCTCGCCCTG	CTCTGTGCCC	TGCGAGCCAA	GGTGTGTGGG	GCCTCGGGTC	AGTTCGAGTT
	L A L	L C A	L R A K	V C G	A S G Q F E L>
490	500	510	520	530	540
GGAGATCCTG	TCCATGCAGA	ACGTGAACGG	GGAGCTGCAG	AACGGGAAC	GCTGCGGCGG
	E I L	S M Q	N V N G	E L Q	N G N C C G G>
550	560	570	580	590	600
CGCCCGGAAC	CCGGGAGACC	GCAAGTGCAC	CCGCGACGAG	TGTGACACAT	ACTTCAAAGT
	A R N	P G D	R K C T	R D E	C D T Y F K V>
610	620	630	640	650	660
GTGCCTCAAG	GAGTATCAGT	CCCGCGTCAC	GGCCGGGGGG	CCCTGCAGCT	TCGGCTCAGG
	C L K	E Y Q	S R V T	A G G	P C S F G S G>
670	680	690	700	710	720
GTCCACGCCT	GTCATCGGGG	GCAACACCTT	CAACCTCAAG	GCCAGCCGCG	GCAACGACCC
	S T P	V I G	G N T F	N L K	A S P G N D P>
730	740	750	760	770	780
GAACCGCATC	GTGCTGCCTT	TCAGTTTCGC	CTGGCCGAGG	TCCTATACGT	TGCTTGTGGA
	N R I	V L P	F S F A	W P R	S Y T L L V E>
790	800	810	820	830	840
GGCGTGGGAT	TCCAGTAATG	ACACCGTTCA	ACCTGACAGT	ATTATTGAAA	AGGCTTCTCA
	A W D	S S N	D T V Q	P D S	I I E K A S H>
850	860	870	880	890	900
CTCGGGCATG	ATCAACCCCA	GCCGGCAGTG	GCAGACGCTG	AAGCAGAACA	CGGGCGTTGC
	S G M	I N P	S R Q W	Q T L	K Q N T G V A>

FIG. 11A



RECEIVED
JUN 09 2003
TECH CENTER 1800/2900

```

          910          920          930          940          950          960
CCACTTTGAG TATCAGATCC GCGTGACCTG TGATGACTAC TACTATGGCT TTGGCTGTAA
  H F E Y Q I R V T C D D Y Y Y G F G C N>
          970          980          990          1000          1010          1020
TAAGTTCTGC CGCCCCAGAG ATGACTTCTT TGGACACTAT GCCTGTGACC AGAATGGCAA
  K F C R P R D D F F G H Y A C D Q N G N>
          1030          1040          1050          1060          1070          1080
CAAACTTGC ATGGAAGGCT GGATGGGCCC CGAATGTAAC AGAGCTATTT GCCGACAAGG
  K T C M E G W M G P E C N R A I C R Q G>
          1090          1100          1110          1120          1130          1140
CTGCAGTCTT AAGCATGGGT CTTGCAAACT CCCAGGTGAC TGCAGGTGCC AGTACGGCTG
  C S P K H G S C K L P G D C R C Q Y G W>
          1150          1160          1170          1180          1190          1200
GCAAGGCCTG TACTGTGATA AGTGCATCCC ACACCCGGGA TGCCTCCACG GCATCTGTAA
  Q G L Y C D K C I P H P G C V H G I C N>
          1210          1220          1230          1240          1250          1260
TGAGCCCTGG CAGTGCCTCT GTGAGACCAA CTGGGGCGGC CAGCTCTGTG ACAAAGATCT
  E P W Q C L C E T N W G G Q L C D K D L>
          1270          1280          1290          1300          1310          1320
CAATTACTGT GGGACTCATC AGCCGTGTCT CAACGGGGGA ACTTGTAGCA ACACAGGCCC
  N Y C G T H Q P C L N G G T C S N T G P>
          1330          1340          1350          1360          1370          1380
TGACAAATAT CAGTGTTCCT GCCCTGAGGG GTATTGAGGA CCCAACTGTG AAATTGCTGA
  D K Y Q C S C P E G Y S G P N C E I A E>
          1390          1400          1410          1420          1430          1440
GCACGCCTGC CTCTCTGATC CCTGTCACAA CAGAGGCAGC TGTAAGGAGA CCTCCCTGGG
  H A C L S D P C H N R G S C K E T S L G>
          1450          1460          1470          1480          1490          1500
CTTTGAGTGT GAGTGTTCCT CAGGCTGGAC CGGCCCCACA TGCTCTACAA ACATTGATGA
  F E C E C S P G W T G P T C S T N I D D>
          1510          1520          1530          1540          1550          1560
CTGTTCTCCT AATAACTGTT CCCACGGGGG CACCTGCCAG GACCTGGTTA ACGGATTTAA
  C S P N N C S H G G T C Q D L V N G F K>
          1570          1580          1590          1600          1610          1620
GTGTGTGTGC CCCCCACAGT GGAATGGGAA AACGTGCCAG TTAGATGCAA ATGAATGTGA
  C V C P P Q W T G K T C Q L D A N E C E>
          1630          1640          1650          1660          1670          1680
GGCCAAACCT TGTGTAAACG CCAAATCTG TAAGAATCTC ATTGCCAGCT ACTACTGCCA
  A K P C V N A K S C K N L I A S Y Y C D>

```

FIG. 11B



RECEIVED
JUN 09 2003
TECH CENTER 1600/2900

1690	1700	1710	1720	1730	1740
CTGTCTTCCC	GGCTGGATGG	GTCAGAATTG	TGACATAAAT	ATTAATGACT	GCCTTGGCCA
C L P	G W M	G Q N C	D I N	I N D	C L G Q>
1750	1760	1770	1780	1790	1800
GTGTCAGAAT	GACGCCTCCT	GTCGGGATTT	GGTTAATGGT	TATCGCTGTA	TCTGTCCACC
C Q N	D A S	C R D L	V N G	Y R C	I C P P>
1810	1820	1830	1840	1850	1860
TGGCTATGCA	GGCGATCACT	GTGAGAGAGA	CATCGATGAA	TGTGCCAGCA	ACCCCTGTTT
G Y A	G D H	C E R D	I D E	C A S	N P C L>
1870	1880	1890	1900	1910	1920
GAATGGGGGT	CACTGTCAGA	ATGAAATCAA	CAGATTCCAG	TGTCTGTGTC	CCACTGGTTT
N G G	H C Q	N E I N	R F Q	C L C	P T G F>
1930	1940	1950	1960	1970	1980
CTCTGGAAC	CTCTGTCAGC	TGGACATCGA	TTATTGTGAG	CCTAATCCCT	GCCAGAACGG
S G N	L C Q	L D I D	Y C E	P N P	C Q N G>
1990	2000	2010	2020	2030	2040
TGCCCCAGTG	TACAACCGTG	CCAGTGACTA	TTTCTGCAAG	TGCCCCGAGG	ACTATGAGGG
A Q C	Y N R	A S D Y	F C K	C P E	D Y E G>
2050	2060	2070	2080	2090	2100
CAAGAACTGC	TCACACCTGA	AAGACCACTG	CCGCACGACC	CCCTGTGAAG	TGATTGACAG
K N C	S H L	K D H C	R T T	P C E	V I D S>
2110	2120	2130	2140	2150	2160
CTGCACAGTG	GCCATGGCTT	CCAACGACAC	ACCTGAAGGG	GTGCGGTATA	TTTCCTCCAA
C T V	A M A	S N D T	P E G	V R Y	I S S N>
2170	2180	2190	2200	2210	2220
CGTCTGTGGT	CCTCACGGGA	AGTGCAAGAG	TCAGTCGGGA	GGCAAATTCA	CCTGTGACTG
V C G	P H G	K C K S	Q S G	G K F	T C D C>
2230	2240	2250	2260	2270	2280
TAACAAAGGC	TTCACGGGAA	CATACTGCCA	TGAAAATATT	AATGACTGTG	AGAGCAACCC
N K G	F T G	T Y C H	E N I	N D C	E S N P>
2290	2300	2310	2320	2330	2340
TTGTAGAAAC	GGTGGCACTT	GCATCGATGG	TGTCAACTCC	TACAAGTGCA	TCTGTAGTGA
C R N	G G T	C I D G	V N S	Y K C	I C S D>
2350	2360	2370	2380	2390	2400
CGGCTGGGAG	GGGGCCTACT	GTGAAACCAA	TATTAATGAC	TGCAGCCAGA	ACCCCTGCCA
G W E	G A Y	C E T N	I N D	C S Q	N P C H>
2410	2420	2430	2440	2450	2460
CAATGGGGGC	ACGTGTCGCG	ACCTGGTCAA	TGACTTCTAC	TGTGACTGTA	AAAATGGGTG
N G G	T C R	D L V N	D F Y	C D C	K N G W>

FIG. 11C



RECEIVED
JUN 08 2003
TECH CENTER 1800/1800

2470	2480	2490	2500	2510	2520
GAAAGGAAAG	ACCTGCCACT	CACGTGACAG	TCAGTGTGAT	GAGGCCACGT	GCAACAACGG
K G K	T C H	S R D S	Q C D	E A T	C N N G>
2530	2540	2550	2560	2570	2580
TGGCACCTGC	TATGATGAGG	GGGATGCTTT	TAAGTGCATG	TGTCCTGGCG	GCTGGGAAGG
G T C	Y D E	G D A F	K C M	C P G	G W E G>
2590	2600	2610	2620	2630	2640
AACAACCTGT	AACATAGCCC	GAAACAGTAG	CTGCCTGCCC	AACCCCTGCC	ATAATGGGGG
T T C	N I A	R N S S	C L P	N P C	H N G G>
2650	2660	2670	2680	2690	2700
CACATGTGTG	GTCAACGGCG	AGTCCTTTAC	GTGCGTCTGC	AAGGAAGGCT	GGGAGGGGGC
T C V	V N G	E S F T	C V C	K E G	W E G P>
2710	2720	2730	2740	2750	2760
CATCTGTGCT	CAGAATACCA	ATGACTGCAG	CCCTCATCCC	TGTTACAACA	GCGGCACCTG
I C A	Q N T	N D C S	P H P	C Y N	S G T C>
2770	2780	2790	2800	2810	2820
TGTGGATGGA	GACAACTGGT	ACCGGTGCGA	ATGTGCCCCG	GGTTTTGCTG	GGCCCGACTG
V D G	D N W	Y R C E	C A P	G F A	G P D C>
2830	2840	2850	2860	2870	2880
CAGAATAAAC	ATCAATGAAT	GCCAGTCTTC	ACCTTGTGCC	TTTGGAGCGA	CCTGTGTGGA
R I N	I N E	C Q S S	P C A	F G A	T C V D>
2890	2900	2910	2920	2930	2940
TGAGATCAAT	GGCTACCGGT	GTGTCTGCCC	TCCAGGGCAC	AGTGGTGCCA	AGTGCCAGGA
E I N	G Y R	C V C P	P G H	S G A	K C Q E>
2950	2960	2970	2980	2990	3000
AGTTTCAGGG	AGACCTTGCA	TCACCATGGG	GAGTGTGATA	CCAGATGGGG	CCAAATGGGA
V S G	R P C	I T M G	S V I	P D G	A K W D>
3010	3020	3030	3040	3050	3060
TGATGACTGT	AATACCTGCC	AGTGCCTGAA	TGGACGGATC	GCCTGCTCAA	AGGTCTGGTG
D D C	N T C	Q C L N	G R I	A C S	K V W C>
3070	3080	3090	3100	3110	3120
TGGCCCTCGA	CCTTGCTGCT	TCCACAAAGG	GCACAGCGAG	TGCCCCAGCG	GGCAGAGCTG
G P R	P C L	L H K G	H S E	C P S	G Q S C>
3130	3140	3150	3160	3170	3180
CATCCCCATC	CTGGACGACC	AGTGCCTTCGT	CCACCCCTGC	ACTGGTGTGG	GCGAGTGTGC
I P I	L D D	Q C F V	H P C	T G V	G E C R>
3190	3200	3210	3220	3230	3240
GTCTTCCAGT	CTCCAGCCGG	TGAAGACAAA	GTGCACCTCT	GACTCCTATT	ACCAGGATAA
S S S	L Q P	V K T K	C T S	D S Y	Y Q D N>
3250	3260	3270	3280	3290	3300
CTGTGCGAAC	ATCACATTTA	CCTTTAACAA	GGAGATGATG	TCACCAGGTC	TTACTACGGA
C A N	I T F	T F N K	E M M	S P G	L T T E>

FIG. 11D



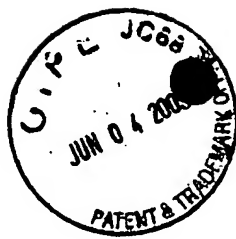
RECEIVED
JUN 0 9 2003
TECH CENTER 1600/2900

```

3310      3320      3330      3340      3350      3360
GCACATTTGC AGTGAATTGA GGAATTTGAA TATTTTGAAG AATGTTTCCG CTGAATATTC
  H I C   S E L   R N L N   I L K   N V S   A E Y S>
3370      3380      3390      3400      3410      3420
AATCTACATC GCTTGCGAGC CTTCCCCTTC AGCGAACAAT GAAATACATG TGGCCATTTC
  I Y I   A C E   P S P S   A N N   E I H   V A I S>
3430      3440      3450      3460      3470      3480
TGCTGAAGAT ATACGGGATG ATGGGAACCC GATCAAGGAA ATCACTGACA AAATAATCGA
  A E D   I R D   D G N P   I K E   I T D   K I I D>
3490      3500      3510      3520      3530      3540
TCTTGTTACT AAACGTGATG GAAACAGCTC GCTGATTGCT GCCGTTGAAG AAGTAAGAGT
  L V T   K R D   G N S S   L I A   A V E   E V R V>
3550      3560      3570      3580      3590      3600
TCAGAGGCGG CCTCTGAAGA ACAGAACAGA TTTCCTTGTT CCCTTGCTGA GCTCTGTCTT
  Q R R   P L K   N R T D   F L V   P L L   S S V L>
3610      3620      3630      3640      3650      3660
AACTGTGGCT TGGATCTGTT GCTTGGTGAC GGCCTTCTAC TGGTGCCTGC GGAAGCGGGC
  T V A   W I C   C L V T   A F Y   W C L   R K R R>
3670      3680      3690      3700      3710      3720
GAAGCCGGGC AGCCACACAC ACTCAGCCTC TGAGGACAAC ACCACCAACA ACGTGCGGGA
  K P G   S H T   H S A S   E D N   T T N   N V R E>
3730      3740      3750      3760      3770      3780
GCAGCTGAAC CAGATCAAAA ACCCCATTGA GAAACATGGG GCCAACACGG TCCCCATCA
  Q L N   Q I K   N P I E   K H G   A N T   V P I K>
3790      3800      3810      3820      3830      3840
GGATTACGAG AACAAGAACT CCAAAATGTC TAAAATAAGG ACACACAATT CTGAAGTAGA
  D Y E   N K N   S K M S   K I R   T H N   S E V E>
3850      3860      3870      3880      3890      3900
AGAGGACGAC ATGGACAAAC ACCAGCAGAA AGCCCGGTTT GCCAAGCAGC CGGCGTACAC
  E D D   M D K   H Q Q K   A R F   A K Q   P A Y T>
3910      3920      3930      3940      3950      3960
GCTGGTAGAC AGAGAAGAGA AGCCCCCAA CGGCACGCCG ACAAACACC CAACTGGAC
  L V D   R E E   K P P N   G T P   T K H   P N W T>
3970      3980      3990      4000      4010      4020
AAACAAACAG GACAACAGAG ACTTGAAAG TGCCCAGAGC TTAAACCGAA TGGAGTACAT
  N K Q   D N R   D L E S   A Q S   L N R   M E Y I>
4030      4040      4050      4060      4070      4080
CGTATAGCAG ACCGCGGGCA CTGCCGCCGC TAGGTAGAGT CTGAGGGCTT GTAGTTCTTT
V >

```

FIG. 11E



RECEIVED
JUN 9 9 2003
TECH CENTER 1000/2900

4090	4100	4110	4120	4130	4140
AAACTGTCGT	GTCATACTCG	AGTCTGAGGC	CGTTGCTGAC	TTAGAATCCC	TGTGTTAATT
4150	4160	4170	4180	4190	4200
TAGTTTGACA	AGCTGGCTTA	CACTGGCAAT	GGTAGTTCTG	TGGTTGGCTG	GGAAATCGAG
4210	4220	4230	4240	4250	4260
TGGCGCATCT	CACAGCTATG	CAAAAAGCTA	GTCAACAGTA	CCCCTGGTTG	TGTGTCCCCT
4270	4280	4290	4300	4310	4320
TGCAGCCGAC	ACGGTCTCGG	ATCAGGCTCC	CAGGAGCTGC	CCAGCCCCCT	GGTACTTTGA
4330	4340	4350	4360	4370	4380
GCTCCCACTT	CTGCCAGATG	TCTAATGGTG	ATGCAGTCTT	AGATCATAGT	TTTATTTATA
4390	4400	4410	4420	4430	4440
TTTATTGACT	CTTGAGTTGT	TTTTGTATAT	TGGTTTTATG	ATGACGTACA	AGTAGTTCCTG
4450	4460	4470	4480	4490	4500
TATTTGAAAG	TGCCTTTGCA	GCTCAGAACC	ACAGCAACGA	TCACAAATGA	CTTTATTATT
4510	4520	4530	4540	4550	4560
TATTTTTTTT	AATTGTATTT	TTGTTGTTGG	GGGAGGGGAG	ACTTTGATGT	CAGCAGTTGC
4570	4580	4590	4600	4610	4620
TGGTAAAATG	AAGAATTTAA	AGAAAAAATG	TCCAAAAGTA	GAACTTTGTA	TAGTTATGTA
4630	4640	4650	4660	4670	4680
AATAATTCTT	TTTTATTAAT	CACTGTGTAT	ATTTGATTTA	TTAACTTAAT	AATCAAGAGC
4690	4700	4710	4720	4730	4740
CTTAAACAT	CATTCCTTTT	TATTTATATG	TATGTGTTTA	GAATTGAAGG	TTTTTGATAG
4750	4760	4770	4780	4790	4800
CATTGTAAGC	GTATGGCTTT	ATTTTTTTGA	ACTCTTCTCA	TTACTTGTTG	CCTATAAGCC
4810	4820	4830	4840	4850	4860
AAAAAGGAAA	GGGTGTTTTG	AAAATAGTTT	ATTTTAAAC	AATAGGATGG	GCTACACGTA
4870	4880	4890	4900	4910	4920
CATAGGTAA	TAATAGCACC	GTAAGGTTA	TGATGATGAA	AATAACTGGA	AACTTGAAAG
4930	4940	4950	4960	4970	4980
CTTGTGGTAA	TGGCAGATAA	AGATGGTTCA	CCTGGGAAAT	TAAACTTGA	ATGGTTGTAC
4990	5000	5010	5020	5030	5040
AGAAAAGCAC	AGAGTGGAAT	GCACATCAAT	GACAGTAAGG	GAGTTAGTTC	TAGGAACAGC
5050	5060	5070	5080	5090	5100
TCCTGAACAG	TAAGATTCCC	GCAATAGTCT	CCGCCTCGTT	CGTCTATGGT	ATGCATCCCA
5110	5120	5130	5140	5150	5160
TTCATTTTCT	TCTTCTGATT	ATTGTCATCT	TTCCCTTTGC	CAAATGGGCA	GTTATTGTTT
5170	5180	5190	5200	5210	5220
CAGGGAGAGA	AGCTGCTCAT	TGGCCAATCA	TTCTGGTGTG	CAGTGCTCCA	TCGGATTCTA
5230	5240	5250	5260	5270	5280
CATGTCCAAC	AAGGCATGTC	TGGATGATGC	AATGTCTGTC	TGACCCCCGG	AATCCGTGTC

FIG. 11F



RECEIVED
JUN 09 2003
TECH CENTER 1600/2800

5290	5300	5310	5320	5330	5340
AGAGACAACA	TTCTAGACAG	ATATACACTT	TTTATTATTA	ACAAACTTTG	GCCACAACCT
5350	5360	5370	5380	5390	5400
TTGATGTATA	AATTGCCGGA	TTTCCCCAGT	CCTTTCATTG	TGGCTTTGGA	CAGGAGCAGG
5410	5420	5430	5440	5450	5460
CTCACTTGTC	TGCTTCAGGC	TGCCTTTCTC	TTGGGTTGCA	CCTCAGTTCT	TACTTATTTA
5470	5480	5490	5500	5510	5520
TTTATTTTGA	GTGGAGCATA	GGGGCCTCTT	CCAAAATGGG	TAGAGCTCAG	GGGCTTTCTT
5530	5540	5550	5560	5570	5580
ATTGAAATGG	TCACATGATA	AAAACGGGCT	GAAAAAGGAG	AGTTCCAGGA	GAAAAGCCCA
5590	5600	5610	5620	5630	5640
GAAAAGGCC	CTCCTCAGAA	GACAGCCTTT	AAGCCTCTTG	CTTACTGAAG	GAAGCCCCAC
5650	5660	5670	5680	5690	5700
CTTCTAGCAC	TGAGGCCGGG	TCTGATCTTC	CAGAGGAGTT	GGAGGAGTCC	ATGAGAATGG
5710	5720	5730	5740	5750	5760
CCACCATTCT	TGCTTGCTGC	TGCTGATGTT	GCAGTTTTGA	GAGAACAGCG	GGATCCTTGT
5770	5780	5790	5800	5810	5820
TGTCCTCTAG	AGACTTGAGT	CTGTCACTGA	CATTTTTTCA	GTTTCTTTGC	TCATAGACCA
5830	5840	5850	5860	5870	5880
TACGAGGAAT	TAGTGATGTG	TCAGTTGAGA	GTTTCAATC	TCATTGTTCA	TTTAATTCAC
5890	5900	5910	5920	5930	5940
TTTAAAGTTG	TCAATTTCTG	TGTGAGTAAC	CTGTAAAAGA	CACCTTTCCA	GAAGAGTTTT
5950	5960	5970	5980	5990	6000
GCCGTCTGTT	TGAAAAAAA	ATCTTTATAA	ACTTTCCTAA	GTATCTGGAT	TTGGATTCTT
6010	6020	6030	6040	6050	6060
TATTTGGAGA	GAAAATGTAC	CCTGTCTCCA	CCAAAAATAC	AAAAATTAGC	CAGGCTTGGT
6070	6080	6090	6100	6110	6120
GGTGCACACC	GGTAATCCCA	GCAACTCTGG	AGACTAAGGC	AGGAAGAATC	GCTTGACCCA
6130	6140	6150	6160	6170	6180
GGAGGGTCGA	GGCTACAATG	AGTTGAAACC	GCGCCACTGC	ACTCCAGCCT	GGGCGACAGT
6190	6200	6210	6220	6230	6240
GCGAGGCCCT	GTCTCAAAAA	TAAAATAAAA	TAAATAAATA	AATTAGCCAG	ATACTGTGTG
6250	6260	6270	6280	6290	6300
CACGCCTGCA	GTCCCAGCTA	TTCTGGAAGC	TGAGGTGGGA	AGATGGTTAA	GCCTGAGAGG
6310	6320	6330	6340	6350	6360
ACAAAGCTGC	AGTGAGTCAT	GTTTGTCATCA	CTGCACTCCA	GCCTGGGTGA	CAGAGCAAGA
6370	6380	6390	6400	6410	6420
CCCTGTCTAA	AAAACAAAAA	CAGGCCGGGT	GTGGTGGCTC	ATGCCTGCCA	TCCCAGTGCT
6430	6440	6450	6460		
TTGGGAGGCA	GAGGTTGGCA	TAATCCCAGC	GCTCTGGGAA	TTCC	

FIG. 11G



RECEIVED
JUN 09 2003
TECH CENTER 1600/2900

GGCCGGGGCC GGGCGGGCGG GTCGCGGGGG CAATGCGGGC GCAGGSCCGG GGGCGCCTTC 60
CCCGGCGGCT GCTGCTGCTG CTGGCGCTCT GGGTGCAGGC GGC CGGCCC ATGGGCTATT 120
TCGAGCTGCA GCTGAGCGCG CTGCGGAACG TGAACGGGGA GCTGCTGAGC GGGCCTGCT 180
GTGACGGCGA CGGCCGGACA ACGCGCGCGG GGGGCTGCGG CCACGACGAG TGCACACCG 240
CTCCTTTACC CTCATCGTGG AGGCCTGGGA CTGGGACAAC GATACCACCC CGAATGAGGA 300
GCTGCTGATC GAGCGAGTGT CGCATGCCGG C ATG ATC AAC CCG GAG GAC CGC 352
Met Ile Asn Pro Glu Asp Arg
1 5
TGG AAG AGC CTG CAC TTC AGC GGC CAC GTG GCG CAC CTG GAG CTG CAG 400
Trp Lys Ser Leu His Phe Ser Gly His Val Ala His Leu Glu Leu Gln
10 15 20
ATC CGC GTG CGC TGC GAC GAG AAC TAC TAC AGC GCC ACT TGC AAC AAG 448
Ile Arg Val Arg Cys Asp Glu Asn Tyr Tyr Ser Ala Thr Cys Asn Lys
25 30 35
TTC TGC CGG CCC CGC AAT GAC TTT TTC GGC CAC TAC ACC TGC GAC CAG 496
Phe Cys Arg Pro Arg Asn Asp Phe Phe Gly His Tyr Thr Cys Asp Gln
40 45 50 55
TAC GGC AAC AAG GCC TGC ATG GAC GGC TGG ATG GGC AAG GAG TGC AAG 544
Tyr Gly Asn Lys Ala Cys Met Asp Gly Trp Met Gly Lys Glu Cys Lys
60 65 70
GAA GCT GTG TGT AAA CAA GGG TGT AAT TTG CTC CAC GGG GGA TGC ACC 592
Glu Ala Val Cys Lys Gln Gly Cys Asn Leu Leu His Gly Gly Cys Thr
75 80 85
GTG CCT GGG GAG TGC AGG TGC AGC TAC GGC TGG CAA GGG AGG TTC TGC 640
Val Pro Gly Glu Cys Arg Cys Ser Tyr Gly Trp Gln Gly Arg Phe Cys
90 95 100
GAT GAG TGT GTC CCC TAC CCC GGC TGC GTG CAT GGC AGT TGT GTG GAG 688
Asp Glu Cys Val Pro Tyr Pro Gly Cys Val His Gly Ser Cys Val Glu
105 110 115
CCC TGG CAG TGC AAC TGT GAG ACC AAC TGG GGC GGC CTG CTC TGT GAC 736
Pro Trp Gln Cys Asn Cys Glu Thr Asn Trp Gly Gly Leu Leu Cys Asp
120 125 130 135
AAA GAC CTG AAC TAC TGT GGC AGC CAC CAC CCC TGC ACC AAC GGA GGC 784
Lys Asp Leu Asn Tyr Cys Gly Ser His His Pro Cys Thr Asn Gly Gly
140 145 150

FIG. 12A



RECEIVED
JUN 09 2003
TECH CENTER 1600/2900

ACG TGC ATC AAC GCC GAG CCT GAC CAG TAC CGC TGC ACC TGC CCT GAC 832
Thr Cys Ile Asn Ala Glu Pro Asp Gln Tyr Arg Cys Thr Cys Pro Asp
155 160 165
GGC TAC TCG GGC AGG AAC TGT GAG AAG GCT GAG CAC GCC TGC ACC TCC 880
Gly Tyr Ser Gly Arg Asn Cys Glu Lys Ala Glu His Ala Cys Thr Ser
170 175 180
AAC CCG TGT GCC AAC GGG GGC TCT TGC CAT GAG GTG CCG TCC GGC TTC 928
Asn Pro Cys Ala Asn Gly Gly Ser Cys His Glu Val Pro Ser Gly Phe
185 190 195
GAA TGC CAC TGC CCA TCG GGC TGG AGC GGG CCC ACC TGT GCC CTT GAC 976
Glu Cys His Cys Pro Ser Gly Trp Ser Gly Pro Thr Cys Ala Leu Asp
200 205 210 215
ATC GAT GAG TGT GCT TCG AAC CCG TGT GCG GCC GGT GGC ACC TGT GTG 1024
Ile Asp Glu Cys Ala Ser Asn Pro Cys Ala Ala Gly Gly Thr Cys Val
220 225 230
GAC CAG GTG GAC GGC TTT GAG TGC ATC TGC CCC GAG CAG TGG GTG GGG 1072
Asp Gln Val Asp Gly Phe Glu Cys Ile Cys Pro Glu Gln Trp Val Gly
235 240 245
GCC ACC TGC CAG CTG GAC GCC AAT GAG TGT GAA GGG AAG CCA TGC CTT 1120
Ala Thr Cys Gln Leu Asp Ala Asn Glu Cys Glu Gly Lys Pro Cys Leu
250 255 260
AAC GCT TTT TCT TGC AAA AAC CTG ATT GGC GGC TAT TAC TGT GAT TGC 1168
Asn Ala Phe Ser Cys Lys Asn Leu Ile Gly Gly Tyr Tyr Cys Asp Cys
265 270 275
ATC CCG GGC TGG AAG GGC ATC AAC TGC CAT ATC AAC GTC AAC GAC TGT 1216
Ile Pro Gly Trp Lys Gly Ile Asn Cys His Ile Asn Val Asn Asp Cys
280 285 290 295
CGC GGG CAG TGT CAG CAT GGG GGC ACC TGC AAG GAC CTG GTG AAC GGG 1264
Arg Gly Gln Cys Gln His Gly Gly Thr Cys Lys Asp Leu Val Asn Gly
300 305 310
TAC CAG TGT GTG TGC CCA CGG GGC TTC GGA GGC CGG CAT TGC GAG CTG 1312
Tyr Gln Cys Val Cys Pro Arg Gly Phe Gly Gly Arg His Cys Glu Leu
315 320 325
GAA CGA GAC AAG TGT GCC AGC AGC CCC TGC CAC AGC GGC GGC CTC TGC 1360
Glu Arg Asp Lys Cys Ala Ser Ser Pro Cys His Ser Gly Gly Leu Cys
330 335 340
GAG GAC CTG GCC GAC GGC TTC CAC TGC CAC TGC CCC CAG GGC TTC TCC 1408
Glu Asp Leu Ala Asp Gly Phe His Cys His Cys Pro Gln Gly Phe Ser
345 350 355

FIG. 12B



RECEIVED
JUN 09 2003
TECH CENTER 1600/2900

GGG CCT CTC TGT GAG GTG GAT GTC GAC CTT TGT GAG CCA AGC CCC TGC 1456
Gly Pro Leu Cys Glu Val Asp Val Asp Leu Cys Glu Pro Ser Pro Cys
360 365 370 375
CGG AAC GGC GCT CGC TGC TAT AAC CTG GAG GGT GAC TAT TAC TGC GCC 1504
Arg Asn Gly Ala Arg Cys Tyr Asn Leu Glu Gly Asp Tyr Tyr Cys Ala
380 385 390
TGC CCT GAT GAC TTT GGT GGC AAG AAC TGC TCC GTG CCC CGC GAG CCG 1552
Cys Pro Asp Asp Phe Gly Gly Lys Asn Cys Ser Val Pro Arg Glu Pro
395 400 405
TGC CCT GGC GGG GCC TGC AGA GTG ATC GAT GGC TGC GGG TCA GAC GCG 1600
Cys Pro Gly Gly Ala Cys Arg Val Ile Asp Gly Cys Gly Ser Asp Ala
410 415 420
GGG CCT GGG ATG CCT GGC ACA GCA GCC TCC GGC GTG TGT GGC CCC CAT 1648
Gly Pro Gly Met Pro Gly Thr Ala Ala Ser Gly Val Cys Gly Pro His
425 430 435
GGA CGC TGC GTC AGC CAG CCA GGG GGC AAC TTT TCC TGC ATC TGT GAC 1696
Gly Arg Cys Val Ser Gln Pro Gly Gly Asn Phe Ser Cys Ile Cys Asp
440 445 450 455
AGT GGC TTT ACT GGC ACC TAC TGC CAT GAG AAC ATT GAC GAC TGC CTG 1744
Ser Gly Phe Thr Gly Thr Tyr Cys His Glu Asn Ile Asp Asp Cys Leu
460 465 470
GGC CAG CCC TGC CGC AAT GGG GGC ACA TGC ATC GAT GAG GTG GAC GCC 1792
Gly Gln Pro Cys Arg Asn Gly Gly Thr Cys Ile Asp Glu Val Asp Ala
475 480 485
TTC CGC TGC TTC TGC CCC AGC GGT TGG GAG GGC GAG CTC TGC GAC ACC 1840
Phe Arg Cys Phe Cys Pro Ser Gly Trp Glu Gly Glu Leu Cys Asp Thr
490 495 500
AAT CCC AAC GAC TGC CTT CCC GAT CCC TGC CAC AGC CGC GGC CGC TGC 1888
Asn Pro Asn Asp Cys Leu Pro Asp Pro Cys His Ser Arg Gly Arg Cys
505 510 515
TAC GAC CTG GTC AAT GAC TTC TAC TGT GCG TGC GAC GAC GGC TGG AAG 1936
Tyr Asp Leu Val Asn Asp Phe Tyr Cys Ala Cys Asp Asp Gly Trp Lys
520 525 530 535
GGC AAG ACC TGC CAC TCA CGC GAG TTC CAG TGC GAT GCC TAC ACC TGC 1984
Gly Lys Thr Cys His Ser Arg Glu Phe Gln Cys Asp Ala Tyr Thr Cys
540 545 550
AGC AAC GGT GGC ACC TGC TAC GAC AGC GGC GAC ACC TTC CGC TGC GCC 2032
Ser Asn Gly Gly Thr Cys Tyr Asp Ser Gly Asp Thr Phe Arg Cys Ala
555 560 565
TGC CCC CCC GGC TGG AAG GGC AGC ACC TGC GCC GTC GCC AAG AAC AGC 2080
Cys Pro Pro Gly Trp Lys Gly Ser Thr Cys Ala Val Ala Lys Asn Ser
570 575 580

FIG. 12C



RECEIVED
JUN 09 2003
TECH CENTER 1600/2800

AGC TGC CTG CCC AAC CCC TGT GTG AAT GGT GGC ACC TGC GTG GGC AGC	2128
Ser Cys Leu Pro Asn Pro Cys Val Asn Gly Gly Thr Cys Val Gly Ser	
585 590 595	
GGG GCC TCC TTC TCC TGC ATC TGC CGG GAC GGC TGG GAG GGT CGT ACT	2176
Gly Ala Ser Phe Ser Cys Ile Cys Arg Asp Gly Trp Glu Gly Arg Thr	
600 605 610 615	
TGC ACT CAC AAT ACC AAC GAC TGC AAC CCT CTG CCT TGC TAC AAT GGT	2224
Cys Thr His Asn Thr Asn Asp Cys Asn Pro Leu Pro Cys Tyr Asn Gly	
620 625 630	
GGC ATC TGT GTT GAC GGC GTC AAC TGG TTC CGC TGC GAG TGT GCA CCT	2272
Gly Ile Cys Val Asp Gly Val Asn Trp Phe Arg Cys Glu Cys Ala Pro	
635 640 645	
GGC TTC GCG GGG CCT GAC TGC CGC ATC AAC ATC GAC GAG TGC CAG TCC	2320
Gly Phe Ala Gly Pro Asp Cys Arg Ile Asn Ile Asp Glu Cys Gln Ser	
650 655 660	
TCG CCC TGT GCC TAC GGG GCC ACG TGT GTG GAT GAG ATC AAC GGG TAT	2368
Ser Pro Cys Ala Tyr Gly Ala Thr Cys Val Asp Glu Ile Asn Gly Tyr	
665 670 675	
CGC TGT AGC TGC CCA CCC GGC CGA GCC GGC CCC CGG TGC CAG GAA GTG	2416
Arg Cys Ser Cys Pro Pro Gly Arg Ala Gly Pro Arg Cys Gln Glu Val	
680 685 690 695	
ATC GGG TTC GGG AGA TCC TGC TGG TCC CGG GGC ACT CCG TTC CCA CAC	2464
Ile Gly Phe Gly Arg Ser Cys Trp Ser Arg Gly Thr Pro Phe Pro His	
700 705 710	
GGA AGC TCC TGG GTG GAA GAC TGC AAC AGC TGC CGC TGC CTG GAT GGC	2512
Gly Ser Ser Trp Val Glu Asp Cys Asn Ser Cys Arg Cys Leu Asp Gly	
715 720 725	
CGC CGT GAC TGC AGC AAG GTG TGG TGC GGA TGG AAG CCT TGT CTG CTG	2560
Arg Arg Asp Cys Ser Lys Val Trp Cys Gly Trp Lys Pro Cys Leu Leu	
730 735 740	
GCC GGC CAG CCC GAG GCC CTG AGC GCC CAG TGC CCA CTG GGG CAA AGG	2608
Ala Gly Gln Pro Glu Ala Leu Ser Ala Gln Cys Pro Leu Gly Gln Arg	
745 750 755	
TGC CTG GAG AAG GCC CCA GGC CAG TGT CTG CGA CCA CCC TGT GAG GCC	2656
Cys Leu Glu Lys Ala Pro Gly Gln Cys Leu Arg Pro Pro Cys Glu Ala	
760 765 770 775	
TGG GGG GAG TGC GGC GCA GAA GAG CCA CCG AGC ACC CCC TGC CTG CCA	2704
Trp Gly Glu Cys Gly Ala Glu Glu Pro Pro Ser Thr Pro Cys Leu Pro	
780 785 790	
CGC TCC GGC CAC CTG GAC AAT AAC TGT GCC CGC CTC ACC TTG CAT TTC	2752
Arg Ser Gly His Leu Asp Asn Asn Cys Ala Arg Leu Thr Leu His Phe	
795 800 805	

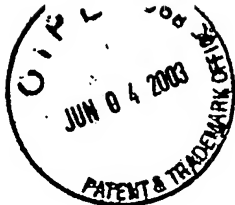
FIG. 12D



RECEIVED
JUN 09 2003
JECH CENTER 1600/2900

AAC CGT GAC CAC GTG CCC CAG GGC ACC ACG GTG GGC GCC ATT TGC TCC	2800
Asn Arg Asp His Val Pro Gln Gly Thr Thr Val Gly Ala Ile Cys Ser	
810 815 820	
GGG ATC CGC TCC CTG CCA GCC ACA AGG GCT GTG GCA CGG GAC CGC CTG	2848
Gly Ile Arg Ser Leu Pro Ala Thr Arg Ala Val Ala Arg Asp Arg Leu	
825 830 835	
CTG GTG TTG CTT TGC GAC CGG GCG TCC TCG GGG GCC AGT GCT GTG GAG	2896
Leu Val Leu Leu Cys Asp Arg Ala Ser Ser Gly Ala Ser Ala Val Glu	
840 845 850 855	
GTG GCC GTG TCC TTC AGC CCT GCC AGG GAC CTG CCT GAC AGC AGC CTG	2944
Val Ala Val Ser Phe Ser Pro Ala Arg Asp Leu Pro Asp Ser Ser Leu	
860 865 870	
ATC CAG GGC GCG GCC CAC GCC ATC GTG GCC GCC ATC ACC CAG CGG GGG	2992
Ile Gln Gly Ala Ala His Ala Ile Val Ala Ala Ile Thr Gln Arg Gly	
875 880 885	
AAC AGC TCA CTG CTC CTG GCT GTC ACC GAG GTC AAG GTG GAG ACG GTT	3040
Asn Ser Ser Leu Leu Leu Ala Val Thr Glu Val Lys Val Glu Thr Val	
890 895 900	
GTT ACG GGC GGC TCT TCC ACA GGT CTG CTG GTG CCT GTG CTG TGT GGT	3088
Val Thr Gly Gly Ser Ser Thr Gly Leu Leu Val Pro Val Leu Cys Gly	
905 910 915	
GCC TTC AGC GTG CTG TGG CTG GCG TGC GTG GTC CTG TGC GTG TGG TGG	3136
Ala Phe Ser Val Leu Trp Leu Ala Cys Val Val Leu Cys Val Trp Trp	
920 925 930 935	
ACA CGC AAG CGC AGG AAA GAG CGG GAG AGG AGC CGG CTG CCG CGG GAG	3184
Thr Arg Lys Arg Arg Lys Glu Arg Glu Arg Ser Arg Leu Pro Arg Glu	
940 945 950	
GAG AGC GCC AAC AAC CAG TGG GCC CCG CTC AAC CCC ATC CGC AAC CCC	3232
Glu Ser Ala Asn Asn Gln Trp Ala Pro Leu Asn Pro Ile Arg Asn Pro	
955 960 965	
ATT GAG CGG CCG GGG GGG CAC AAG GAC GTG CTC TAC CAG TGC AAG AAC	3280
Ile Glu Arg Pro Gly Gly His Lys Asp Val Leu Tyr Gln Cys Lys Asn	
970 975 980	
TTC ACT CCA CCG CCG CGC AGG CGC TGC CCG GGC CGG CCG GCC ACG CGG	3328
Phe Thr Pro Pro Pro Arg Arg Cys Pro Gly Arg Pro Ala Thr Arg	
985 990 995	
CCG TCA GGG AGG ATG AGG AGG ACG AGG ATC TTG GCC GCG GTG AGG AGG	3376
Pro Ser Gly Arg Met Arg Arg Thr Arg Ile Leu Ala Ala Val Arg Arg	
1000 1005 1010 1015	
ACT CCC TGG AGG CGG AGA AGT TCC TCT CAC ACA AAT TCA CCA AAG ATC	3424
Thr Pro Trp Arg Arg Arg Ser Ser Ser His Thr Asn Ser Pro Lys Ile	
1020 1025 1030	

FIG. 12E



RECEIVED
JUN 09 2003
TECH CENTER 1600/2900

CTG GCC GCT CGC CGG GGA GGC CGG CCC ACT GGG CCT CAG GCC CCA AAG 3472
Leu Ala Ala Arg Arg Gly Gly Arg Pro Thr Gly Pro Gln Ala Pro Lys
1035 1040 1045
TGG ACA ACC GCG CGG TCA GGA GCA TCA ATG AGG CCC GCT ACG TCG GCA 3520
Trp Thr Thr Ala Arg Ser Gly Ala Ser Met Arg Pro Ala Thr Ser Ala
1050 1055 1060
AGG GAA GTA GGG CGG CTG CAG CTG GGC CGG GAC CCA GGG CCC TCG GTG 3568
Arg Glu Val Gly Arg Leu Gln Leu Gly Arg Asp Pro Gly Pro Ser Val
1065 1070 1075
GGA GCC ATG CCG TCT GCC GGA CCC GGA GGC CGA GGC CAT GTG CAT AGT 3616
Gly Ala Met Pro Ser Ala Gly Pro Gly Gly Arg Gly His Val His Ser
1080 1085 1090 1095
TTC TTT ATT TTG TGT AAA AAA ACC ACC AAA AAC AAA AAC CAA ATG TTT 3664
Phe Phe Ile Leu Cys Lys Lys Thr Thr Lys Asn Lys Asn Gln Met Phe
1100 1105 1110
ATT TTC TAC GTT TCT TTA ACC TTG TAT AAA TTA TTC AGT AAC TGT CAG 3712
Ile Phe Tyr Val Ser Leu Thr Leu Tyr Lys Leu Phe Ser Asn Cys Gln
1115 1120 1125
GCT GAA AAC AAT GGA GTA TTC TCG GAT AGT TGC TAT TTT TGT AAA GTA 3760
Ala Glu Asn Asn Gly Val Phe Ser Asp Ser Cys Tyr Phe Cys Lys Val
1130 1135 1140
GCC GTG CGT GGC ACT CGC TGT ATG AAA GGA GAG AGC AAA GGG TGT CTG 3808
Ala Val Arg Gly Thr Arg Cys Met Lys Gly Glu Ser Lys Gly Cys Leu
1145 1150 1155
CGT CGT CAC CAA ATC GTC GCG TTT GTT ACC AGA GGT TGT GCA CTG TTT 3856
Arg Arg His Gln Ile Val Ala Phe Val Thr Arg Gly Cys Ala Leu Phe
1160 1165 1170 1175
ACA GAA TCT TCC TTT TAT TCC TCA CTC GGG TTT CTC TGT GCT CCA GGC 3904
Thr Glu Ser Ser Phe Tyr Ser Ser Leu Gly Phe Leu Cys Ala Pro Gly
1180 1185 1190
CAA AGT GCC GGT GAG ACC CAT GGC TGT GTT GGT GTG GCC CAT GGC TGT 3952
Gln Ser Ala Gly Glu Thr His Gly Cys Val Gly Val Ala His Gly Cys
1195 1200 1205
TGG TGG GAC CCG TGG CTG ATG GTG TGG CCT GTG GCT GTC GGT GGG ACT 4000
Trp Trp Asp Pro Trp Leu Met Val Trp Pro Val Ala Val Gly Gly Thr
1210 1215 1220
CGT GGC TGT CAA TGG GAC CTG TGG CTG TCG GTG GGA CCT ACG GTG GTC 4048
Arg Gly Cys Gln Trp Asp Leu Trp Leu Ser Val Gly Pro Thr Val Val
1225 1230 1235

FIG. 12F



RECEIVED
JUN 09 2003
TECH CENTER 1600/2800

GGT GGG ACC CTG GTT ATT GAT GTG GCC CTG GCT GCC GGC ACG GCC CGT 4096
Gly Gly Thr Leu Val Ile Asp Val Ala Leu Ala Ala Gly Thr Ala Arg
1240 1245 1250 1255
GGC TGT TG ACGCACCTGT GGTGTGTAGT GGGGCCTGAG GTCATCGGCG TGGCCCAAGG 4154
Gly Cys
CCGGCAGGTC AACCTCGGCG TTGCTGGCCA GTCCACCCTG CCTGCCGTCT GTGCTTCCTC 4214
CTGCCCAGAA CGCCCGCTCC AGCGATCTCT CCACTGTGCT TTCAGAAGTG CCCTTCCTGC 4274
TGCGCAGTTC TCCCATCCTG GGACGGCGGC AGTATTGAAG CTCGTGACAA GTGCCTTCAC 4334
ACAGACCCCT CGCAACTGTC CACGCGTGCC GTGGCACCAG GCGCTGCCCA CCTGCCGGCC 4394
CCGGCCGCCC CTCCTCGTGA AAGTGCATTT TTGTAAATGT GTACATATTA AAGGAAGCAC 4454
TCTGTATAAA AAAAAAAAAAC CGGAATTCC 4483

FIG. 12G



RECEIVED
JUN 09 2003
TECH CENTER 1600/2800

CAGGTGGCGTCAGCATCGGGACAGTTCGAGCTGGAGATCTTATCCGTGCAGAATGTGAACGGCGTGCT
GCAGAACGGGAACCTGCTGCGACGGCACTCGAAACCCCGGAGATAAAAAAGTGCACCAGAGATGAGTGTG
ACACCTACTTTAAAGTTTGCCTGAAGGAGTACCACTCGCGGGTCACTGCTGGCGGCCCTTGCAGCTTC
GGATCCAAATCCACCCCTGTCATCGGCGGGAATACCTTCAATTTAAAGTACAGCCGGAATAATGAAAA
GAACCGGATTGTTATCCCTTTCAGTTCGCCTGGCCGAGATCCTACACGTTGCTTGTGAGGCATGGG
ATTACAATGATAACTCTACTAATCCCGATCGCATAATTGAGAAGGCATCCCACTCTGGCATGATCAAT
CCAAGCCGTCACTGGCAGACGTTGAAACATAACACAGGAGCTGCCCACTTTGAGTATCAAATCCGTGT
GACTTGGCGAGAACATTACTATGGCTTTGGATGCAACAAGTTTTGTGACCGAGAGATGACTTCTTCA
CTCACCATACTGTGACCAGAATGGCAACAAAACCTGCTTGGAAAGGCTGGACGGGACCAGAATGCAAC
AAAGCTATTTGTGTCAGGGATGTAGCCCCAAGCATGGTTCTTGCACAGTTCAGGAGAGTGCAGGTG
TCAGTATGGATGGCAAGGCCAGTACTGTGATAAGTGCATTCCACACCCGGGATGTGTCCATGGCACTT
GCATTGAACCATGGCAGTGCCTCTGTGAAACCACTGGGGTGGTCACTCTGTGACAAAGACCTGAAC
TACTGTGGAACCCACCCACCTGTTTGAATGGTGGTACCTGCAGCAACACTGGCCCCGATAAATACCA
GTGTTCTTGCCTGAGGGTTACTCAGGACAGAAGTGTGAAATAGCGGAGCATGCGTGCCTCTCTGATC
CGTGCCACAACGGAGGAAGCTGCCTAGAAACGTCTACAGGATTTGAATGTGTGTGTGCACCTGGCTGG
GCTGGACCAACTTGCACTGATAATATTGATGATTGTTCTCCAAATCCCTGTGGTCACTGGAGGAACCTG
CCAAGATCTAGTTGATGGATTAAAGTGTATTTGCCACCTCAGTGGACTGGCAAAACATGCCAGCTAG
ATGCGAATGAATGTGAGGGCAAACCTGTGTCAATGCCAATCCTGCAGGAACCTGATTGGCAGCTAC
TATTGTGACTGCATTACTGGCTGGTCTGGCCACAAGTGTGATATAAATATTAATGATTGTCTGTGGACA
ATGTCAGAATGGAGGATCCTGTGGGACTTGGTTAATGGTTATCGGTGCATCTGTTACCTGGCTATG
CAGGAGATCACTGTGAGAAAGACATCAATGAATGTGCAAGTAACCCCTTGCATGAATGGGGGTCACTGC
CAGGATGAAATCAATGGATTCCAATGTCTGTGTCTGCTGGTTTCTCAGGAAACCTCTGTGAGCTGGA
TATAGACTACTGTGAGCCAAACCTTGCCAGAACGGTGCCAGTGCTTCAATCTTGCTATGGACTATT
TCTGTAACGGCCTGAAGATTACGAAGGCAAGAACTGCTCCACCTGAAAGATCACTGCCGCACAACCT
CCTTGTGAAGTAATCGACAGCTGTACAGTGGCAGTGGCTTCTAACAGCACACCAGAAGGAGTTCTGTTA
CATTTCTTCAAATGTCTGTGGTCCCTCATGGAAAAATGCAAGAGCCAAGCAGGTGGAAAAATTCACCTGTG
AATGCAACAAAGGATTCACTGGCACCTACTGTGATGAGAATATCAATGACTGTGAGAGCAACCCCTGT
AAAAATGGTGGCACTTGTATTGACGGTGTAACTCCTACAAATGTATTTGTAGTGATGGATGGGAAGG
AACATATTGTGAAACAAATATTAATGACTGCAGTAAAAACCCCTGCCACAATGGAGGAACCTTGCCGAG
ACTTGGTCAATGACTTCTTCTGTGAATGTAAAAATGGGTGGAAAGGAAAAATTTGCCACTCTCGTGAC
AGCCAGTGTGATGAGGCAACATGCAATAATGGAGGAACATGTTATGATGAGGGGGACACTTTCAAGTG
CATGTGTCTGTCAGGATGGGAAGGAGCCACTTGTAAATAGCAAGGAACAGCAGCTGCCTGCCAAACC
CCTGTCACAATGGTGGTACCTGTGTAGTTAGTGGGGATTCTTTCACCTTGTGTCTGCAAGGAGGGCTGG
GAAGGACCGACATGTACTCAGAACACAATGACTGCAGTCTCATCCTTGTACAACAGTGGTACTTG
TGTTGATGGAGACAACCTGGTACCGCTGTGAGTGCCTCCCGGCTTCGAGGTCCCGACTGTAGGATCA
ACATCAATGAATGTGAGTCTTACCCTGTGCCTTTGGGGCTACTTGTGTGGATGAAATTAATGGGTAC
CGTTGCATTTGTCCACCGGGTGCAGTGGTCCAGGATGCCAGGAAGTTACAGGGAGGCCCTTGCTTTAC
CAGTATTCGAGTAATGCCAGACGGTGTAAAGTGGGATGATGACTGTAATACTTGTGAGTGTGTAATG
GAAAAGTCACCTGTTCTAAGGTTTGGTGTGGTCTCGACCTTGTATAATACATGCCAAAGGTCATAAT
GAATGCCACAGCTGGACACGCTTGTGTTCTGTAAAGAAGACCATTGTTTCACTCATCCTTGTGCTGC

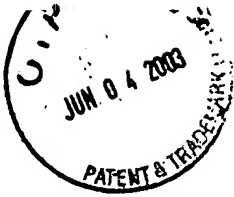
FIG. 13A



RECEIVED
JUN 09 2003
TECH CENTER 1600/2000

AGTGGGTGAATGCTGGCCTTCTAATCAGCAGCCTGTGAAGACCAAATGCAATTCTGATTCTTATTACC
AAGATAATTGTGCCAACATCACCTTCACCTTTAATAAGGAAATGATGGCACCAGGCCTTACCACGGAG
CACATTTGCAGTGAATTGAGGAATCTGAATATCCTGAAGAATGTTTCTGCTGAATATTCCATCTATAT
TACCTGTGAGCCTTCACACTTGGCAAATAATGAAATACATGTTGCTATTTCTGCTGAAGATATAGGAG
AAGATGAAAACCCAATCAAGGAAATCACAGATAAGATTATTGACCTTGTGAGTAAGCGTGATGGAAAC
AACACACTAATTGCTGCAGTCGCAGAAGTCAGAGTACAAAGGCGACCAGTTAAGAACAAAACAGATTT
CTTGGTGCCATTACTGAGCTCAGCTTAACAGTAGCCTGGATCTGCTGTCTGGTAACTGTTTTCTATT
GGTGCAATCAAAAGCGCAGAAAGCAGAGCAGCCATACTCACACAGCATCTGATGACAACACCACCAAC
AACGTAAGGGAGCAGCTGAATCAGATTA AAAACCCCATAGAGAAACACGGAGCAAATACTGTTCCAAT
TAAAGACTATGAAAACAAAACTCTAAAAATCGCCAAAATAAGGACGCACAATTCAGAAGTGGAGGAAG
ATGACATGGACAAACACCAGCAAAAGGCCCGGTTTGCCAAGCAGCCAGCGTACACTTTGGTAGACAGA
GATGAAAAGCCACCCAACAGCACACCCACAAAACACCCAACTGGACAAATAAACAGGACAACAGAGA
CTTGAAAAGTGCACAAAGTTTAAATAGAATGGAGTACATTGTATAG

FIG. 13B



QVASASGQFE LEILSVQNVN GVLQNGNCCD GTRNPGDKKC TRDECDTYFK 50
VCLKEYQSRV TAGGPCSFGS KSTPVIGGNT FNLKYSRNE KNRIVIPFSF 100
AWPRSYTLLV EAWDYNDNST NPDRIIEKAS HSGMINPSRQ WQTLKHNTGA 150
AHFEYQIRVT CAEHYYGFGC NKFCRPRDDF FTEHTCDQNG NKTCLGWTG 200
*****DSL DOMAIN*****
PECNKAICRQ GCSPKHGSCV VPGECCQYG WQGQYCDKCI PHPGCVHGTG 250
*** <-----EGF 1----->-----
IEPWQCLCET NWGGQLCDKD LNYCGTHPPC LNGGTCSNTG PDKYQCSCPE 300
-----EGF 2----->-----EGF 3-----
GYSGQNCIEA EHACLSDPCH NGGSCLETST GFECVCAPGW AGPTCTDNID 350
----->-----EGF 4-----
DCSPNPCGHG GTCQDLVDGF KCICPPQWTG KTCQLDANEC EGKPCVNANS 400
>-----EGF 5----->-----
CRNLIGSYYC DCITGWSGHN CDININDCRG QCQNGGSCRD LVNGYRCICS 450
-----EGF 6----->-----EGF 7-----
PGYAGDHCEK DINECASNPC MNGGHCQDEI NGFQCLCPAG FSGNLCQLDI 500
----->-----EGF 8-----
DYCEPNPCQN GAQCFNLAMD YFCNCPEDYE GKNCSTLKH CRTPPCVID 550
>-----EGF 9----->-----
SCTVAVASNS TPEGVRYISS NVCGPHGKCK SQAGGKFTCE CNKGFTGTIC 600
-----EGF 10-----
HENINDCESN PCKNGGTCID GVNSYKCICS DGWEGTYCET NINDCSKNPC 650
----->-----EGF 11----->-----
HNGGTCRDLV NDFFCECKNG WKGKCHSRD SQDEATCNN GGTCYDEGDT 700
-----EGF 12----->-----
FKCMCPAGWE GATCNIARNS SCLPNPCHNG GTCVVS GDSF TCVCKEGWEG 750
EGF 13----->-----EGF 14-----
PTCTQNTNDC SPHPCYNSGT CVDGDMWYRC ECAPGFAGPD CRININECQS 800
----->-----EGF 15----->-----
SPCAFGATCV DEINGYRCIC PPGRSGPGCQ EVTGRPCFTS IRVMPDGAKW 850
-----EGF 16----->-----
DDDCNTCQCL NGKVTCSKVW CGPRPCIHA KGHNECPAGH ACVPVKEDHC 900
<----- CYSTEINE-RICH REGION
FTHPCAAGE CWPSNQPVK TKCNSDSYYQ DNCANITFTF NKEMMAPGLT 950
->-----
TEHICSELRN LNILKNVSAE YSIYITCEPS HLANNEIHVA ISAEDIGEDE 1000

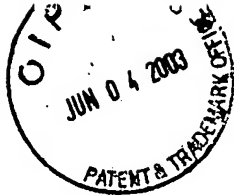
FIG. 14A



RECEIVED
JUN 09 2003
TECH CENTER 1600/2800

NPIKEITDKI IDLVSKRDGN NTLIAAAEV RVQRRPVKNK TDFLVPLLSS 1050
VLTVAWICCL VTVFYWCIQK RRKQSSHTHT ASDDNTNNV REQLNQIKNP 1100
IEKHGANTVP IKDYENKNSK IAKIRTHNSE VEEDMDKHQ QKARFAKQPA 1150
YTLVDRDEKP PNSTPTKHPN WTNKQDNRL ESAQSLNRME YIV 1193

FIG. 14B



RECEIVED
JUN 9 9 2003
TECH CENTER 1605/2300

GAATTCGGCACGAGGTTTTTTTTTTTTTCCCTCTTTCTTTCTTTCTTTTGCC
-----+-----+-----+-----+-----+-----+ 60

61 ATCCGAAAGAGCTGTCAGCCGCCGCCGGCTGCACCTAAAGGCGTCGGTAGGGGGATAAC
-----+-----+-----+-----+-----+-----+ 120

121 AGTCAGAGACCTCCTGAAAGCAGGAGACGGACGGTACCCCTCCGGCTCTGCGGGGCGG
-----+-----+-----+-----+-----+-----+ 180

181 CTGCGGCCCCCTCCGTTCTTTCCCTCCCGAGAGACACTCTTCTTTCCCCCACAAG
-----+-----+-----+-----+-----+-----+ 240

241 ACACAGGGGCAGGAACGCGAGCGCTGCCCTCCGCCATGGGAGGCCGCTTCTGCTGACG
-----+-----+-----+-----+-----+-----+ 300

301 CTCGCCCTCCTCTCGGCGCTGCTGTGCCGCTGCCAGGTTGACGGCTCCGGGTGTTGAG
-----+-----+-----+-----+-----+-----+ 360

361 CTGAAGCTGCAGGAGTTTGTCAACAAGAAGGGCTGCTCAGCAACCGCAACTGCTGCCGG
-----+-----+-----+-----+-----+-----+ 420

421 GGGGGCGGCCCCGAGGCGCCGGGCAGCAGCAGTGGACTGCAAGACCTTCTTCGCGTC
-----+-----+-----+-----+-----+-----+ 480

481 TGCCTGAAGCACTACCAGGCCAGCGTCTCCCCGAGCCGCCCTGCACCTACGGCAGCGCC
-----+-----+-----+-----+-----+-----+ 540

541 ATCACCCCGTCTCGGCGCCAACCTCTTCAGCGTCCCCGACGGCGGGCGGGCGCCGAC
-----+-----+-----+-----+-----+-----+ 600

601 CCCGCCCTCAGCAACCCCATCCGCTTCCCCTTCGGCTTACCTGGCCCGGCACCTTCTCG
-----+-----+-----+-----+-----+-----+ 660

661 CTCATCATCGAGGCTCTGCACACCGACTCCCCGACGACCTACCACAGAAAACCCCGAG
-----+-----+-----+-----+-----+-----+ 720

721 CGCCTCATCAGCCGCTGGCCACCCAGAGGCACCTGGCGGTGGGCGAGGAGTGGTCCCAG
-----+-----+-----+-----+-----+-----+ 780

781 GACCTGCACAGCAGCGGCCGACCGACCTCAAGTACTCCTATCGCTTTGTGTGTATGAG
-----+-----+-----+-----+-----+-----+ 840

FIG. 15A



FIG. 15B



RECEIVED
JUN 09 2003
TECH CENTER 1600/2000

GTCAACGACTACTCCTGCACCTGCCCCCGGGATACAACGGGAAGAACTGCAGCACGCCG
1681 -----+-----+-----+-----+-----+-----+ 1740

GTGAGCAGATGCGAGCACAACCCCTGCCACAATGGGGCCACCTGCCACGAGAGAAGCAAC
1741 -----+-----+-----+-----+-----+-----+ 1800

CGCTACGTGTGCGAGTGCCTCGGGGCTACGGCGGCCTCAACTGCCAGTTCCTGCTCCCC
1801 -----+-----+-----+-----+-----+-----+ 1860

GAGCCACCTCAGGGGCGGGTCATCGTTGACTTCACCGAGAAGTACACAGAGGGCCAGAAC
1861 -----+-----+-----+-----+-----+-----+ 1920

AGCCAGTTTCCCTGGATCGCAGTGTGCGCCGGGATTATTCTGTCCTCATGCTGCTGCTG
1921 -----+-----+-----+-----+-----+-----+ 1980

TACCAGTCGGTGTACGTCATATCAGAAGAGAAAGATGAGTGCATCATAGCAACTGAGGTG
2401 -----+-----+-----+-----+-----+-----+ 2460

TAAAACAGACGTGACGTGGCAAAGCTTATCGATACCGTCATCAAGCTT
2461 -----+-----+-----+-----+-----+-----+ 2508

FIG. 15C



RECEIVED
JUN 09 2003
TECH CENTER 1600/2900

1 GAATCGGCACGAGGTTTTTTTTTTTTTTTTTTTTTCCCTCTTTTCTTTCTTTTCCCTATCCGAAG 69
70 AGCTGTACGCGCGCGGGCTGCACCTAAGGGCTCGGTAGGGGATAACAGTCAGAGACCCCTCCTGA 138
139 AAGCAGGAGACGGGACGGTACCCCTCGGGCTCGGGGGGGCTGGGGCCCTCGGTTCTTCCCCCTC 207
208 CCCGAGAGACACTCTTCTTTCCCCCAGGAAGACACAGGGGCAGGAACGAGCGCTGCCCTCCGCC 276
277 ATGGAGGCCGCTTCTGTGACGCTGCCCTCCTCTGGGGCTGTGTGGCGCTGCCAGGTGACGGC 345
346 TCCGGGTGTTGAGCTGAAGCTGCAGGAGTTGTCAACAAGAAGGGCTGCTCAGCAACCGCAACTGC 414
415 TGCCGGGGGGCGGCCCGGAGGGCGCGGGCAGCAGAGTGCGACTGCAAGACCTTCTTCCGGCTCTGC 483
484 CTGAAGCACTACAGGCCAGCGTCTCCCGAGCCGCCCTGCACCTACGGCAGGCCCATACCCCGTGC 552
553 CTGGCGGCAACTCTTTCAGCGTCCCCGAGGGCGGGCGCGCCGACCCCGCTTCAGCAACCCCATC 621
622 CGCTTCCCTTCGGCTTCACTGGCCCCGGCAGCTTCTCGTCTATCATCGAGGCTCTGCACACCGACTCC 690
691 CCCGACGACTCACACAGAAAACCCGAGGGCTCATCAGCGGCTGGCCACCCAGAGGCACTGGCG 759
760 GTGGCGAGGAGTGGTCCAGGACCTGCACAGCGGGCGCCAGCCCTCAAGTACTCTTATCGCTTT 828
829 XXGTGTGATGAGCACTACTACGGGGAAGGCTGCTGTCTTCTGCGGGCCCGTGACGACCGCTTCGGT 897
898 CACTTCACCTGTGGAGAGCGTGGCGAGAAGGTCTGAACCCAGGCTGGAAGGGCCAGTACTGCACTGAG 966
967 CCGATTGCTTGGCTGGGTGTGACGAGCAGCAGCGCTTCTGGCACAACCTGGGGAATGCAAGTGCAGA 1035
1036 GTGGGTGGCAGGGGGGCTACTGTACGAGTGCATCCGATACCCAGGCTGCTGCAACCCAGGCTGACCTGTCAG 1104
1105 CAGCCATGGCAGTGCAACTGCCAGGAAGGCTGGGGCGGCTTTCTGCAACCCAGGCTGACCTGCTGCT 1173
1174 ACTCACCACAAGCCATGCAAGAAATGGTGCCACATGCACCAACACCGGTGAGGGAGCTACACTTGTCT 1242
1243 TGCCGACCTGGGTACACAGGCTCCAGCTGCGAGATTGAATCAACGAATGTGATGCCAACCCCTTGAAG 1311
1312 AATGGTGAAGCTGCACGGATCTCGAGAACAGCTATTCTGTACTGCCCGCCAGGCTTCTATGGTAAA 1380
1381 AACTGTGAGCTGAGTGCAATGACTTGTGTGATGGACCGTGTCTCAATGGAGGGCGATGCACAGCAAC 1449
1450 CCTGATGGTGGATACAGTGGCGTGGCGTGGCTTATCTGGGTCAACTGTGAAAAGAAAATCGAT 1518
1519 TACTGCAGTTCAGCCCTTGTGCTAATGGAGCCAGTGGCTGACTGGGGAACCTCTACATATGCCAG 1587
1588 TGCCAGGCTGGCTTCACTGGCAGGCACTGTGACGACAACGTGGAGGATGGCGCTCCTTCCCTGGCTC 1656
1657 AATGGAGGGACCTGTGAGGATGGGTCAACGACTACTCTGCACCTGCCCGCCGGGATACAACGGGAAG 1725
1726 AACTGCAGCACGCCGGTGAGCAGATGCGAGCACACCCCTGCCACAATGGGGCCCACTGCCACCGAGAGA 1794

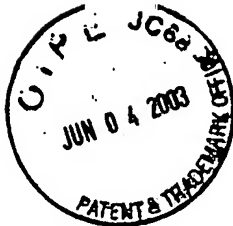
FIG. 16A



RECEIVED
JUN 0 9 2003
TECH CENTER 1600/2900

1795 AGCAACCGCTACGTGTGCGAGTGGCTCGGGCTACGGCGGCTCAACTGCCAGTTCCTGCTCCCGAG 1863
1864 CCACCTCAGGGCGGTGTCATGTTGACTTCACCGAGAAGTACACAGAGGCCAGAACAGCAGTTTCCC 1932
1933 TGGATCGCAGTGTGCGCGGATTAATCTGGTCTCATGCTGCTGCTGGTTGCGCGCCATGTCGTC 2001
2002 TGGTCAGGCTGAAGGTGCAGAGAGGCCACCAGCCCGAGGCTGCAGGAGTGAACGGAGACCATG 2070
2071 AACAACTGGCGAACTGCCAGCGGAGAGGACATCTCCATCAGGCTCATCGGTGCCACTCAGATTAA 2139
2140 AACACAAATAAGAAAGTAGACTTTCACAGCGATAACTCCGATAAAACGGCTACAAAGTTAGATACCCA 2208
2209 TCAGTGGATTACAATTTGGTGATGAACCTCAAGAATGAGACTCTGTGAAGAGGAGCATGGCAATGC 2277
2278 GAAGCCAAGTGTGAACGATGATTTCAGAGGAGAGAGAAAGCGCAGTACAGCTAAAAAGTAGTGAC 2346
2347 ACTTCTGAAAGAAACGGCCAGATTTCAGTATATTCACATTCAAGGACACAAAGTACCAGTCGGTGAC 2415
2416 GTCATATCAGAGAGAGAAAGATGAGTGTCATATAGCAACTGAGGTAGTATCCACCCTGGCAGTCGGACA 2484
2485 AGTCTTGGTGTGATTCCCATCCAGCGAGGTGAGGGGGCCAAACCATTTCTACCTGCTGCCACAGTC 2553
2554 ATCTGTACCCAAATGAAACTGGCCACCTTCAGTCTGTGGCACTGCAGACGTTGAAAAACTTGTGTGG 2622
2623 ATTAACATAAGCTCCAGTGGGGTTACAGGGACAGCAATTTTGCAGGCAAGGGTATAACTGTAGTGCA 2691
2692 GTTGTAGCTTACTAACCTTACTGACTCATTCTTGTGTGCTTCTGACAGAGCTGTTTTTGTGTGGCA 2760
2761 TTGAGGTGAAGTCCCTGACCTCTGCATCCTCATAGTCTGCTTCTTTTATTAACTCTTCTGCTC 2829
2830 TCTGCTTGTGTTTTCTCTCAACAGGTGTAAAAACAGACGTGACGTGGCAAGCTT 2883

FIG. 16B



RECEIVED
JUN 09 2003
TECH CENTER 1600/2900

1 MGGRFLLTLA LLSALLCRCQ VDGSGVFELK LQEFVNKKGL LSNRNCCRGG GPGGAGQQQC
61 DCKTFFRVCL KHYQASVSPE PPCTYGSALT PVLGANSFSV PDGAGGADPA FSNPIRFPFG
121 FTWPGTFSLI IEALHTDSPD DLTTENPERL ISRLATQRHL AVGEEWSQDL HSSGRTDLKY
181 SYRFVCDHY YGEGCSVFCR PRDDRFGHFT CGERGEKVCN PGWKGQYCTE PICLPGCDEQ
241 HGFCDKPGEC KCRVGWQGRY CDECIRYPGC LHGTCQQPWQ CNCQEGWGGL FCNQDLNYCT
301 HHKPCNGAT CTNTGQGSYT CSCRPGYTGS SCEIEINECD ANPCKNGGSC TDLNSYSCT
361 CPPGFYGNKNC ELSAMTCADG PCFNGGRCTD NPDGGYSCRC PLGYSGFNCE KKIDYCSSSP
421 CANGAQCVDL GNSYICQQA GFTGRHCDN VDDCASFPV NGGTCQDGVN DYSCTCPPGY
481 NGKNCSTPVS RCEHNPCHNG ATCHERSNRY VCECARGYGG LNCQFLLPEP PQGPVIVDFT
541 EKYTEGQNSQ FPWIAVCAGI ILVLMLLGC AAIVVCVRLK VQKRHHOPEA CRSETETMNN
601 LANCQREKDI SISVIGATQI KNTNKKVDFH SDNSDKNGYK VRYPVDYNL VHELKNEDSV
661 KEEHGKCEAK CETYDSEAE KSAVQLKSSD TSEKRPDSV YSTSKDTKYQ SVYVISEEKD
721 ECIIATEV

FIG. 17

RECEIVED
JUN 02 2003

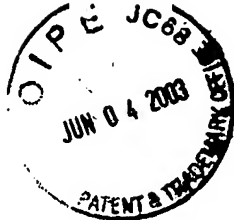
C-Delta-1	1	MGGRFL	TL	LA	LS	AL	LL	CR	CQ	VD	GS	GV	FE	LK	Q	EF	VN	KK	G	L	SN	NR	NC	CR	GG	GP	GA	Q	Q	C	60				
X-Delta-1	1	MGQQRML	TL	LL	VLS	AV	LL	CR	IS	CS	GL	FE	EL	R	Q	EF	VN	KK	G	L	SN	NR	NC	CR	GG	GP	GA	Q	Q	C	56				
Delta	1	..MH	WIK	CL	LL	TA	FI	CT	VI	V	Q	V	H	S	SG	S	FE	LR	K	Y	FN	DH	GR	DN	EG	RC	CS	ES	DS	GA	T	G	K	59	
C-Delta-1	61	DCKT	FF	RV	CL	XH	YQ	AS	VS	PE	PP	CT	YG	SA	IT	PV	LG	AN	SP	VS	PD	AG	AG	AD	PA	FS	NP	IR	FP	FG	121				
X-Delta-1	57	ECKT	FF	RV	CL	XH	YQ	SN	VS	PE	PP	CT	YG	SA	IT	PV	LG	AN	SP	VS	PD	AG	AG	AD	PA	FS	NP	IR	FP	FG	116				
Delta	60	SCKT	RE	RL	CL	KH	YO	AT	ID	TS	QC	TY	GD	VI	TP	IL	GE	NS	VN	LT	DA	QR	FQ	NK	GE	TP	NI	Q	EP	FE	120				
C-Delta-1	122	TP	PG	TS	LI	IE	AL	IR	TD	SP	DD	LT	TEN	PER	LI	SRL	AT	QR	HL	AV	GE	EW	SQ	DL	HS	SG	RT	DL	K	YS	Y	182			
X-Delta-1	117	TP	PG	TS	LI	IE	AL	IR	TD	SP	DD	LT	TEN	PER	LI	SRL	AT	QR	HL	TV	GE	EW	SQ	DL	HS	SG	RT	DL	K	YS	Y	177			
Delta	121	SW	PG	TS	LI	IE	AL	IR	TD	SP	DD	LT	TEN	PER	LI	SRL	AT	QR	HL	EV	SS	EW	KT	NK	SE	SQ	YT	SL	EY	DF	180				
C-Delta-1	183	RF	VC	DE	HY	YG	GC	SV	EC	RP	RD	DR	FG	HF	TC	GE	RG	EK	V	CN	PG	WK	Q	Y	CT	EP	IC	LP	GC	DE	QH	GF	243		
X-Delta-1	178	RF	VC	DE	HY	YG	GC	SV	EC	RP	RD	DR	FG	HF	TC	GE	RG	EK	V	CN	PG	WK	Q	Y	CT	EP	IC	LP	GC	DE	HH	GY	238		
Delta	181	RV	TC	DL	NY	YG	GC	AK	EC	RP	RD	DS	FG	HS	TC	SE	TE	GE	I	IC	LT	GM	Q	Y	CT	EP	IC	LP	GC	DE	..	HG	239		
C-Delta-1	244	CD	KP	GE	CK	CR	VG	WQ	QR	YC	DE	CI	RY	PG	CL	HG	TC	Q	Q	PW	QC	NC	Q	EG	WG	GL	FC	CN	QD	LN	Y	CT	HH	KP	304
X-Delta-1	239	CD	KP	GE	CK	CR	VG	WQ	QR	YC	DE	CI	RY	PG	CL	HG	TC	Q	Q	PW	QC	NC	Q	EG	WG	GL	FC	CN	QD	LN	Y	CT	HH	KP	299
Delta	240	CD	KP	GE	CK	CR	VG	WQ	QR	YC	DE	CI	RY	PG	CL	HG	TC	Q	Q	PW	QC	NC	Q	EG	WG	GL	FC	CN	QD	LN	Y	CT	HH	KP	300
C-Delta-1	305	CK	NG	AT	CT	NT	GT	GS	YT	CS	CR	PG	YT	GS	CE	IE	IN	EC	DA	..	NP	CK	NG	GS	CT	..	..	..	..	..	..	..	..	360
X-Delta-1	300	CK	NG	AT	CT	NT	GT	GS	YT	CS	CR	PG	YT	GS	CE	IE	IN	EC	DA	..	NP	CK	NG	GS	CT	..	..	..	..	..	..	..	..	355
Delta	301	CK	NG	AT	CT	NT	GT	GS	YT	CS	CR	PG	YT	GS	CE	IE	IN	EC	DA	..	NP	CK	NG	GS	CT	..	..	..	..	..	..	..	..	361
C-Delta-1	361	CP	PG	FY	GK	NC	EL	SAM	TC	AD	GP	CF	NG	..	..	..	GR	CA	TD	NP	PD	GG	YS	CR	CP	LG	YS	GF	NC	CE	KK	ID	YC	416
X-Delta-1	356	CP	PG	FY	GK	NC	EL	SAM	TC	AD	GP	CF	NG	..	..	..	GR	CA	TD	NP	PD	GG	YS	CR	CP	LG	YS	GF	NC	CE	KK	ID	YC	411
Delta	362	CR	NG	WS	GK	MC	EL	EV	LT	CS	DK	PC	HQ	GI	CR	NV	RP	GL	GS	KQ	QY	QC	EC	PI	IG	YS	GF	NC	CE	KK	ID	YC	422		

FIG. 18A



C-Delta-1 417 S S P C A N G A Q C V D L G N S Y I C Q C Q A G F T G R H C D D N V D D C A S F P C V N G G T C Q D G V N D Y S C T C P 477
X-Delta-1 412 S S N P C A N G A R C E D L G N S Y I C Q C Q E G F S G R N C D D N L D D C T S F P C Q N G G T C Q D G I N D Y S C T C P 472
Delta 423 S P N P C I N G G S C Q P S G K . . . C I C P S G F S G T R C E T N I D D C L G H Q C E N G G T C T D M V N Q Y R C Q C V 480
EGF6
C-Delta-1 478 P G Y N G K N C S T P V S R C E H N P C H N G A T C H E R S N R Y V C E C A R G Y G G L N C Q F L L P E P P Q G P 534
X-Delta-1 473 P G Y I G K N C S M P I T K C E H N P C H N G A T C H E R N N R Y V C Q C A R G Y G G N N C Q F L L P E 524
Delta 481 P G F H G T H C S S K V D L C L I R P C A N G T C L N L N D Y Q C T C R A G F T G K D C S V D I D E C S S G P C H N G 541
EGF8
C-Delta-1 535 V I V D F T E K Y T E G Q N S Q F P W . . . I A V C A G I I L V L 564
X-Delta-1 525 E K P V V D L T E K Y T E G Q S Q O F P W . . . I A V C A G I I V L V L 557
Delta 542 G T C M N R V N S F E C V C A N G F R G K Q C D E E S Y D S V T F D A H Q Y G A T T Q A R A D G L A N A Q V V I I A V F S 602
EGF9
C-Delta-1 565 M L L L G C A A I V V C V R L K V Q K R H Q P E A C R S E T E T M N N L A N C Q R E K D . . . I S I S V I G A T Q I K N T 623
X-Delta-1 558 M L L L G C A A V V V C V R V R V Q K R R H Q P E A C R S E S T M N N L A N C Q R E K D . . . I S V S F I G T T O I K N T 616
Delta 603 V A M P L V A V I A A C V V F C M K R R E K R A Q E K D N A E A R K Q N E Q M A V A T M H H N G S A V G V A L A S A S M G 663
TM
C-Delta-1 624 N K K V D F H S D . N S D K N G Y K V R Y P S V D Y N L V H E L K N E D S V K E E H G K C B A K C B T Y D S E A E E K S A 683
X-Delta-1 617 N K K I D F L S E S N E K N G Y K P R Y P S V D Y N L V H E L K N E D S P K E E R S K C E A K C S S N D S D S E D V N S 677
Delta 664 G K T G S N S G L T F D G G N P N I I K N T W D K S V N . N I C A S A A A A A A A A A A D E C L N Y G G Y V A S V A D N 723
C-Delta-1 684 V Q L K S S D T S E R K R P D S V Y S T S K D T K Y Q S V Y V I S E K D E C I I A T E V 728
X-Delta-1 678 V H S K . R D S E R R R P D S A Y S T S K D T K Y Q S V Y V I S D E K D E C I I A T E V 721
Delta 724 N N A N S D F C V A P L Q R A K S Q K Q L N T D P T L M H R G S P A G T S A K G A S G G G P G A A E G K R I S V L G E G S 784
Delta 785 Y C S Q R W P S L A A A G V A G A C S S Q L M A A S A A G T D G T A Q Q R S V V C G T P H M 832

FIG. 18B



RECEIVED
JUN 09 2003
TECH CENTER 1600/2900

CTGCAGGAAT	TCSMYCGCAT	GCTCCCGGCC	GCCATGGGCC	GTCGGAGCGC	GCTAGCCCTT	60
CCCGTGGTCT	CTGCCCTGCT	GTGCCAGGTC	TGGAGCTCCG	GCGTATTTGA	GCTGAAGCTG	120
CAGGAGTTCG	TCAACAAGAA	GGGGCTGCTG	GGGAACCGCA	ACTGCTGCCG	CGGGGGCTCT	180
GGCCCGCCTT	GCGCCTGCAG	GACCTTCTTT	CGCGTATGCC	TCAAGCACTA	CCAGGCCAGC	240
GTGTCACCGG	AGCCACCCCTG	CACCTACGGC	AGTGCCGTCA	CGCCAGTGCT	GGGTGTCGAC	300
TCCTTCAGCC	TGCCCTGATGG	CGCAGGCATC	GACCCCGCCT	TCAGCAACCC	CATCCGATTC	360
CCCTTCGGCT	TCACCTGGCC	AGGTACCTTC	TCTCTGATCA	TTGAAGCCCT	CCATACAGAC	420
TCTCCCGATG	ACCTCGCAAC	AGAAACCCCA	GAAAGACTCA	TCAGCCGCCCT	GACCACACAG	480
AGGCACCTCA	CTGTGGGAGA	AGAAATGGTCT	CAGGACCTTC	ACAGTAGCGG	CCGCACAGAC	540
CTCCGGTACT	CTTACCGGTT	TGTGTGTGAC	GAGCACTACT	ACGGAGAAGG	TTGCTCTGTG	600
TTCTGCCCGAC	CTCGGGATGA	CGCCTTTGGC	CACCTTCACCT	GCGGGGACAG	AGGGGAGAAG	660
ATGTGCGACC	CTGGCTGGAA	AGGCCAGTAC	TGCACTGACC	CAATCTGTCT	GCCAGGGTGT	720
GATGACCAAC	ATGGATACTG	TGACAAACCA	GGGAGTGCA	AGTGCAGAGT	TGGCTGGCAG	780
GGCCGCTACT	GCGATGAGTG	CATCCGATAC	CCAGGTTGTC	TCCATGGCAC	CTGCCAGCAA	840
CCCTGGCAGT	GTAAC TGCCA	GGAAGGCTGG	GGGGGCCCTTT	TCTGCAACCA	AGACCTGAAC	900
TACTGTACTC	ACCATAGCC	GTGCAGGAAT	GGAGCCACCT	GCACCAACAC	GGCCAGGGG	960
AGCTACACAT	GTTCCTGCCG	ACCTGGGTAT	ACAGGTGCCA	ACTGTGAGCT	GGAAGTAGAT	1020
GAGTGTGCTC	CTAGCCCCCTG	CAAGAACGGA	GCGAGCTGCA	CGGACCTTGA	GGACAGCTTC	1080
TCTTGACACT	GCCCTCCCGG	CTTCTATGGC	AAGGTCTGTG	AGCTGAGCGC	CATGACCTGT	1140
GCAGATGGCC	CTTGCTTCAA	TGGAGGACGA	TGTTACAGATA	ACCTGACGG	AGGCTACACC	1200
TGCCATTGCC	CCTTGGGCTT	CTCTGGCTTC	AACTGTGAGA	AGAAGATGGA	TCTCTGCCGC	1260
TCTTCCCCCTT	GTTCCTAACGG	TGCCAAAGTGT	GTGGACCTCG	GCAACTCTTA	CCTGTGCCCG	1320
TGCCAGGCTG	GCTTCTCCCG	GAGGTACTGC	GAGGACAATG	TGGATGACTG	TGCCTCCTCC	1380

FIG. 19A



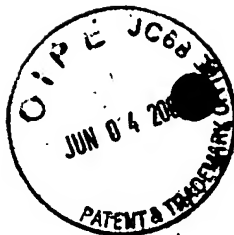
RECEIVED
JUN 09 2003
FBI/DOJ

1440 CCGTGTGCAA ATGGGGGCAC CTGCCCCGGAC AGTGTGAACG ACTTCTCCTG TACCTGCCCA
1500 CCTGGCTACA CGGCAAGAA CTGCAGCGCC CCTGTACGCA GGTTGTAGCA TGCACCCCTGC
1560 CATAATGGGG CCACCTGCCA CCAAGAGGGC CAGCGCTACA TGTGTAGTG CGCCCAAGGC
1620 TATGGCGGCC CCAACTGCCA GTTCTGTCTC CAGAGCCAC CACCAAGGCC CATGGTGGTG
1680 GACCTCAGTG AGAGGCATAT GGAGAGCCAG GCGGGGCCCT TCCCCCTGGGT GCCCGTGTGT
1740 GCCGGGGTGG TGCTGTCTCT CCTGCTGCTG CTGGGCTGTG CTGCTGTGGT GGCTGTGCTC
1800 CGGCTGAAGC TACAGAAACA CCAGCCCTCA CCGTAAACCT GTGGGGGAGA GACAGAAACC
1860 ATGAACAACC TAGCCAATTG CCAGCGCGAG AAGGACGTTT CTGTTAGCAT CATTGGGGCT
1920 ACCCAGATCA AGAACACCAA CAAGAAGCG GACTTTCACG GGGACCATGG AGCCGAGAAG
1980 AGCAGCTTTA AGTCCGATA CCCACTGTG GACTATAACC TCCTTCGAGA CCTCAAGGGA
2040 GATGAAGCCA CGTCAAGGA TACACACAGC AAACGTGACA CCAAGTGCCA GTCACAGAGC
2100 TCTGCAGGAG AAGAGAAGAT CGCCCCAACA CTTAGGGGTG GGGAGATTCC TGACAGAAAA
2160 AGGCCAGAGT CTGTCTACTC TACTTCAAAG GACACCAAGT ACCAGTCGGT GTATGTTCTG
2220 TCTGCAGAAA AGGATGAGTG TGTATAGCG ACTGAGGTGT AAGATGGAAG CGATGTGGCA
2280 AAATTCCCAT TTCTCTTAA TAAATTTCCA AGGATATAGC CCCGATGAAT GCTGCTGAGA
2340 GAGGAAGGGA GAGGAACCC AGGACTGCT GCTGAGAACC AGGTTGAGC GAACGTGGTT
2400 CTCTCAGAGT TAGCAGAGGC GCCCGACACT GCCAGCCTAG GCTTTGGCTG CCGCTGGACT
2460 GCCTGCTGGT TGTTCCTATT GCACATATGA CAGTTGCTTT GAAGAGTATA TATTFAAATG
2520 GACGAGTGAC TTGATTTCATA TAGGAAGCAC GCACTGCCCC CACGCTCTATC TTGGATTACT
2580 ATGAGCCAGT CTTTCCCTGA ACTAGAAACA CAACTGCCCT TATTGTCCTT TTTGATACTG
2640 AGATGTGTTT TTTTCTTTTC CTAGACGGGA AAAAGAAAAA GTGTGTTATT TTTTGTGGGA
2692 TTTGTAAAAA TATTTTTCAT GATTATGGGA GAGCTCCCAA CGCGTTGGAG GT

FIG. 19B

MGRRSALALA VVSALLCQVW SSGVFELKLQ EFVNKKGLLG NRNCCRGSG	50
PPCACRTFFR VCLKHYQASV SPEPPCTYGS AVTPVLGVDS FSLPDCAGID	100
PAFSNPIRFP FGFTWPGTFS LIIEALHTDS PDDLATENPE RLISRLTTQR	150
HLTVGEEWSQ DLHSSGRTDL RYSYRFVUDE HYYGEGCSVF CRPRDDAFGH	200
FTCGDRGEKM CDPGWKGQYC TDPICLPGCD DQHGVCCKPG ECKCRVGWQG	250
RYCDECIRYP GCLHGTCQQP WQCNCQEGWG GLFCNQDLNY CTHHKPCRNG	300
ATCTNTGQGS YTCSCRPGYT GANCELEVDE CAPSPCKNGA SCTDLEDSFS	350
CTCPPPGFYGK VCELSAMTCA DGPCFNGGRC SDNPDGGYTC HCPLGFSGFN	400
CEKMDLCSG SPCSNGAKCV DLGNSYLCRC QAGFSGRYCE DNVDDCASSP	450
CANGGTCRDS VNDFSCTCPG GYTGNKCSAP VSRCEHAPCH NGATCHQRGQ	500
RYMCECAQGY GGPNCQFLLP EPPPGPMVVD LSEHHMESQG GPPFWAVCA	550
GVVLVLLLLL GCAAVVVCVR LKLQKHQPPP EPCGGETETM NNLANCQREK	600
DVSVSIIGAT QIKNTNKKAD FHGDHGAES SFKVRYPTVD YNLVRDLKGD	650
EATVRDTHSK RDTKCQSQSS AGEKIAPTL RGGEIPDRKR PESVYSTSKD	700
TKYQSVYVLS AEKDECVIAT EV	722

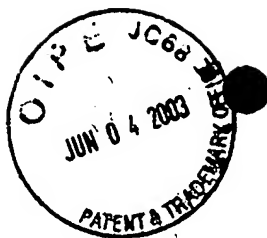
FIG. 20



RECEIVED

JUN 09 2003

TECHNICAL CENTER



RECEIVED

JUN 09 2003

TECH CENTER 1600/2900

10 20 30 40 50 60
* * *
TACGATGAAY AACCTGGCGA ACTGCCAGCG TCAGAAGGAC ATCTCAGTCA GCATCATCGG

70 80 90 100 110 120
* * *
GGCYACGTCA GATCARGAAC ACCAACAAGA AGGCGGACTT YMCASCGGGG GACCASAGCG

130 140 150 160 170 180
* * *
TCCGACAAGA ATGGMTTCA AGGCCYGCTA CCCCAGCGTG GACTATAACT CGTGCAGGAC

190 200 210 220 230 240
* * *
CTCAAGGGTG ACGACACCGC CGTCAGGACG TCGCACAGCA AGCGTGACAC CAAGTGCCAG

250 260 270 280 290 300
* * *
TCCCCAGGCT CCTCAGGGAG GAGAAGGGGA CCCCAGCCAC ACTCAGGGGK TCGTGCTGTC

310 320 330 340 350 360
* * *
GGGCCGGGCT CAGGAGGGGG TACCTGGGGG GTGTCTTCCT GGAACCACTG CTCCGTTTCT

FIG. 21A



RECEIVED
JUN 09 2003
TECH CENTER 1600/2003

370 380 390 400 410 420
* * *
CTTCCCAAAT GTTCTCATGC ATTCATTGTG GATTTTCTCT ATTTTCCTTT TAGTGGAGAA

430 440 450 460 470 480
* * *
GCATCTGAAA GAAAAAGGCC GGACTCGGSC TGTTCAACTT CAAAAGACAC CAAGTACCAG

490 500 510 520
* * *
TCGGTGTACG TCATATCCGA GGAGAAGGAC GAGTGCCTCA TCGCA

FIG. 21B



RECEIVED

JUN 09 2003

TECH. CENTER 16007900

10	20	30	40	50	60
* *	* *	* *	* *	* *	* *
CATTGGGTAC	GGGCCCCCT	CGAGGTCGAC	GGTATCGATA	AGCTTGATAT	CGAATTCGGG
70	80	90	100	110	120
* *	* *	* *	* *	* *	* *
CTTCACCTGG	CCGGGCACCT	TCTCTCTGAT	TATTGAAGCT	CTCCACACAG	ATTCTCCTGA
130	140	150	160	170	180
* *	* *	* *	* *	* *	* *
TGACCTCGCA	ACAGAAAACC	CAGAAAGACT	CATCAGCCGC	CTGGCCACCC	AGAGGCACCT
190	200	210	220	230	240
* *	* *	* *	* *	* *	* *
GACGGTGGGC	GAGGAGTGGT	CCCAGGACCT	GCACAGCAGC	GGCCGCACGG	ACCTCAAGTA
250	260	270	280	290	300
* *	* *	* *	* *	* *	* *
CTCCTACCGC	TTCGTGTGTC	ACCAACACTA	CTACGGAGAG	GGCTGCTCCG	TTTTCTGCCG
310	320	330	340	350	360
* *	* *	* *	* *	* *	* *
TCCCCGGGAC	GATGCCTTCG	GCCACTTCAC	CTGTGGGGAG	CGTGGGGAGA	AAGTGTGCAA
370	380	390	400	410	420
* *	* *	* *	* *	* *	* *
CCCTGGGCTCG	AAAGGGCCCT	ACTGCACAGA	GCCGATCTGC	CTGCCTGGAT	GTGATGAGCA
430	440	450	460	470	480
* *	* *	* *	* *	* *	* *
GCATGGATTT	TGTGACAAAC	CAGGGGAATG	CAAGTGCAGA	GTGGGCTGGC	AGGGCCGGTA
490	500	510	520	530	540
* *	* *	* *	* *	* *	* *
GTGTGACGAG	TGTATCCGCT	ATCCAGGCTG	TCTCCATGGC	ACCTGCCAGC	AGCCCTGGCA
550	560	570	580	590	600
* *	* *	* *	* *	* *	* *
GTGCAACTGC	CAGGAAGGNT	GGGGGGGCCT	TTTCTGCAAC	CAGGACCTGA	ACTACTGCAC
610	620	630	640	650	660
* *	* *	* *	* *	* *	* *
ACACCATAAG	CCCTGCAAGA	ATGGAGCCAC	CTGCAACAAA	CACGGGCCAG	GGGGAGCTAC
670	680	690	700	710	720
* *	* *	* *	* *	* *	* *
ACTTGGTCTT	TGGCCGGNCT	GGGGTACANA	GGGTGCCACC	TGCGAAGCTT	GGGGATTGGA
730	740	750	760	770	780
* *	* *	* *	* *	* *	* *
CGAGTTGTTG	ACCCAGCCC	TTGGTAAGAA	CGGAGGGAGC	TTGACGGATC	TTGGGAGAAC
790	800	810	820	830	840
* *	* *	* *	* *	* *	* *
AGCTACTCCT	GTACCTGCCC	ACCCGGCTTC	TACGGCAAAA	TCTGTGAATT	GAGTGCCATG
850	860	870	880	890	900
* *	* *	* *	* *	* *	* *
ACCTGTGCGG	ACGGCCCTTG	CTTTAACGGG	GGTCGGTGCT	CAGACAGCCC	CGATGGAGGG

FIG. 22A



RECEIVED

JUN 09 2003

TECH CENTER 1600/2900

910	920	930	940	950	960
* *	* *	* *	* *	* *	* *
TACAGCTGCC	GCTGCCCCGT	GGGCTACTCC	GGCTTCAACT	GTGAGAAGAA	AATTGACTAC
970	980	990	1000	1010	1020
* *	* *	* *	* *	* *	* *
TGCAGCTCTT	CACCCTGTTC	TAATGGTGCC	AAGTGTGTGG	ACCTCGGTGA	TGCTACCTG
1030	1040	1050	1060	1070	1080
* *	* *	* *	* *	* *	* *
TGCCGCTGCC	AGGCCGGCTT	CTCGGGGAGG	CACTGTGACG	ACAACGTGGA	CGACTGCGCC
1090	1100	1110	1120	1130	1140
* *	* *	* *	* *	* *	* *
TCCTCCCCGT	GCGCCAACGG	ACCTCGGTGA	CGGGATGGCG	TGAACGACTT	CTCCTGCACC
1150	1160	1170	1180	1190	1200
* *	* *	* *	* *	* *	* *
TGCCCCGCTG	GCTACACGGG	CAGGAACTGC	AGTGCCCCCG	CCAGCACCTG	CGAGCACGCA
1210	1220	1230	1240	1250	1260
* *	* *	* *	* *	* *	* *
CCCTGCCACA	ATGGGGCCAC	CTGCCACGAG	AGGGGCCACC	GCTATNTGTG	CGAGCACGCA
1270	1280	1290	1300	1310	1320
* *	* *	* *	* *	* *	* *
CGAAGCTACG	GGGGTCCCAA	CTCCANTTC	CTGCTCCCCC	AAACTGCCCC	CCCGGCCCCA
1330	1340	1350	1360	1370	1380
* *	* *	* *	* *	* *	* *
CGGTGGTGGA	AACTCCCCTA	AAAAAACCTA	AAAGGGCCGG	GGGGGGCCCA	TCCCCTTGGT
1390	1400	1410	1420	1430	1440
* *	* *	* *	* *	* *	* *
GGACGTGTGC	GCCGGGGTCA	TCCTTGTCTT	CATGCTGTCTG	CTGGGCTGTG	CCGCTGTGGT
1450	1460	1470	1480	1490	1500
* *	* *	* *	* *	* *	* *
GGTCTGCGTC	CGGCTGAGGC	TGCAGAAGCA	CCGGCCCCCA	GCCGACCCCT	GNCGGGGGGA
1510	1520	1530	1540	1550	1560
* *	* *	* *	* *	* *	* *
GACGGAGACC	ATGAACAACC	TGNNCAACTG	CCAGCGTGAG	AAGGACATCT	CAGTCAGCAT
1570	1580	1590	1600	1610	1620
* *	* *	* *	* *	* *	* *
CATCGGGGNC	ACGCAGATCA	AGAACACCAA	CAAGAAGGCG	GACTTCCACG	GGGACCACAG
1630	1640	1650	1660	1670	1680
* *	* *	* *	* *	* *	* *
NGCCGACAAG	AATGGCTTCA	AGGCCCGCTA	CCCAGNGGTG	GACTATAACC	TCGTGCAGGA
1690	1700	1710	1720	1730	1740
* *	* *	* *	* *	* *	* *
CCTCAAGGGT	GACGACACCG	CCGTCAGCCA	CGCGCACAGC	AAGCGTGACA	CCAAGTGNCA
1750	1760	1770	1780	1790	1800
* *	* *	* *	* *	* *	* *
GCCCCAGGGC	TCCTCAGGGG	AGGAGAAGGG	GACCCCCGAC	CCACACTCAG	GGGGTGGAGG

FIG. 22B



RECEIVED
JUN 09 2003
TECH CENTER 1600/2000

1810	1820	1830	1840	1850	1860
* *	* *	* *	* *	* *	* *
AAGCATCTTG	AAAGAAAAAG	GCCGGACTTC	GGGCTTGTTT	AACTTTCAAA	AGACAANCAA
1870	1880	1890	1900	1910	1920
* *	* *	* *	* *	* *	* *
NGTACAAGTC	GGGTNCGTC	ATTTCCGNAG	GAGGAAGGNT	GACTGCGTCA	TAGGAANTTG
1930	1940	1950	1960	1970	1980
* *	* *	* *	* *	* *	* *
AGGTNGTAAA	NTGGNAGTTG	ANNTTGGAAG	GNNNTCCCCG	GATTCCGNTT	TCAAAGTTTT

T

FIG. 22C



GFTWPGTFSLIIEALHTDSPD>	21
<u>DLATENPERLISRLATORHL></u>	41
<u>TVGEEWSQDLHSSGRIDLKY></u>	61
<u>SYRFVCDEHYYGEGCSVFCR></u>	81
<u>PRDDAFGHFTCGERGEKVCN></u>	101
<u>PGWKGPYCTEPICLPGCDEQ></u>	121
<u>HGFCDKPGECKCRVWOGRY></u>	141
<u>CDECIRYPGCLHGTCQOPWQ></u>	161
<u>CNCOEGWGGLEFCNODLNYCT></u>	181
HHKPCKNGAIC* <u>TNTGQG</u> *	198
SYT* <u>PSP</u> *KNGGSLTDL*	213
ENSYSCTCPPGFYGKICELSAM>	235
<u>TCADGPCFNGGRCSDSPDGG></u>	255
<u>YSCRCPVGYSGFNCEKKIDY></u>	275
<u>CSSSPCSNGAKCVDLGDAYL></u>	295
<u>CRCOAGFSGRHCDDNVDDCA></u>	315
<u>SSPCANGGTCDRGVNDFSCT></u>	335
<u>CPPGYTGRNCSAPASRCEHA></u>	355
<u>PCHNGATCHERGHRY</u> *CECA>	374
<u>RSYGGPNC</u> * <u>ELLPE</u> *PPGP*>	391
VV* <u>LLLGCAAVVVCVRLRLOKH></u>	412
<u>RPPADP</u> * <u>RGETETMNNI</u> *>	428

FIG. 23A



RECEIVED
JUN 09 2003
TECH CENTER 1600/2900

<u>NCOREKDISVSIIG</u> * <u>IOIKNTN</u> >	449
<u>KKADFHGDH</u> * <u>ADKNGFKARYP</u> *	469
<u>VDYNLVODLKGDDTAVRDAHSKRDTK</u> *	494
<u>OPOGSSGEEKGTP</u> * <u>PTLR</u> * GG *	514
<u>I</u> * <u>RKRP</u> * S * ST * SKD * T *	526
CVI * EV *	531

FIG. 23B